

Memorandum



Date: March 8, 2016

To: Honorable Chairman Jean Monestime
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

A handwritten signature in black ink, appearing to read "Carlos A. Gimenez".

Agenda Item No. 3(B)(1)

Subject: Resolution Ratifying the Application for a Grant from the Federal Emergency Management Agency Cooperating Technical Partners Program in the Amount of \$1,250,000.00 to Update Flood Maps and Authorizing the Execution of the Agreement and Expending Grant Funds

Resolution No. R-179-16

Recommendation

It is recommended that the Board of County Commissioners (Board) approve this item, which does the following:

- Ratifies the action of the County Mayor's designee of September 3, 2015 to apply for federal funds on behalf of the County under the Federal Emergency Management Agency (FEMA) Cooperating Technical Partners Program;
- Authorizes the County Mayor or County Mayor's designee to receive and expend federal funds awarded in the amount of \$1,250,000.00 from the U.S. Department of Homeland Security's, FEMA Region 4 Office to provide updated Flood Insurance Rate Maps in coordination with the County's Stormwater Management Master Plan;
- Authorizes the County Mayor or County Mayor's designee to enter into and accept the terms of Grant Agreement No. EMW-2015-CA-00071-S01 (Grant Agreement, Attachment A);
- Authorizes the County Mayor or County Mayor's designee to execute such contracts, agreements, Memoranda of Understanding, and amendments as may be required by program guidelines after review by the County Attorney's Office for form and legal sufficiency; and
- Authorizes the County Mayor or the County Mayor's designee to: apply for, receive and expend future funds that may become available under this program; file and execute any necessary new applications and amendments to applications for and on behalf of the County; and exercise amendments, modifications, renewal, cancellation, and termination clauses of any related contracts and agreements following review by the County Attorney's Office for form and legal sufficiency.

The term of this agreement will be from October 1, 2015 to September 30, 2019.

Scope

The Grant Agreement will facilitate countywide updates to the County's FEMA Flood Insurance Rate Maps for Miami-Dade County.

Fiscal Impact/Funding Source

The Grant Agreement will provide \$1,250,000.00 in federal funds to implement the proposed project. No local matching funds or in-kind commitments are required by Miami-Dade County.

Track Record/Monitor

The Water Management Division Director within the Division of Environmental Resources Management of the Department of Regulatory and Economic Resources, Marina Blanco-Pape, P.E., will monitor the Grant Agreement.

Background

The purpose of the Grant Agreement is to update the current FEMA Flood Insurance Rate Maps in Miami-Dade County.

On February 4, 2003, the Board approved Resolution No. R-109-03, which authorized the execution of a Memorandum of Agreement between Miami-Dade County and FEMA so that the County would become a Cooperating Technical Partner with FEMA. As such, the County would provide coordination, identification and mapping of floodplains in Miami-Dade County, and share the data produced with FEMA. Although the Memorandum of Agreement does not specify the map update frequency or deadlines, FEMA's goal is to update the maps every five (5) years. Updates, however, often require longer periods.

Following execution of the Memorandum of Agreement, Miami-Dade County contributed toward the publication of the current Flood Insurance Rate Maps by: providing technical information through the South Florida Water Management District; reviewing and providing public comment to FEMA; and hosting public meetings in coordination with FEMA. The current maps became effective September 11, 2009, but have since become outdated in several areas of the County, resulting in a large number of individual map amendments or annotations to the current maps. The County has continued to work with FEMA to assist with public requests to amend the current maps as needed. FEMA is planning a new update cycle for the current Flood Insurance Rate Maps in Miami-Dade County.

In mid-2015, FEMA asked Miami-Dade County to apply for federal funds and indicated that funds would be available and ready to award for providing updated Flood Insurance Rate Maps in Miami-Dade County. The County submitted an application for federal funding on September 3, 2015.

On September 22, 2015, the County's financial assistance application was approved and awarded in the amount of \$1,250,000.00 as the Grant Agreement recommended in this item for approval. The agreement became effective October 1, 2015 and expires September 30, 2019. The scope of work is described in the Mapping Activity Statement (Attachment B).



Jack Osterholt
Deputy Mayor

ATTACHMENT A

Award Letter



U.S. Department of Homeland Security
Washington, D.C. 20472

Carlos Gimenez
Miami-Dade County
Stephen P. Clark Center
111 NW 1st Street, 19th Floor
Miami, FL 33128

Re: Grant No. EMW-2015-CA-00071

Dear Carlos Gimenez:

Congratulations, on behalf of the Department of Homeland Security, your application for financial assistance submitted under the Fiscal Year (FY) 2015 Cooperating Technical Partners has been approved in the amount of \$ \$1,250,000.00 . You are not required to match this award with any amount of non-Federal funds.

Before you request and receive any of the Federal funds awarded to you, you must establish acceptance of the award. By accepting this award, you acknowledge that the terms of the following documents are incorporated into the terms of your award:

- Agreement Articles (attached to this Award Letter)
- Obligating Document (attached to this Award Letter)
- FY 2015 Cooperating Technical Partners Funding Opportunity Announcement.

Please make sure you read, understand, and maintain a copy of these documents in your official file for this award.

In order to establish acceptance of the award and its terms, please follow these instructions:

Step 1: Please go on-line to the ND Grants system at <https://portal.fema.gov>. After logging in, you will see a subtitle Grants Management. Under this subtitle, you will see a link that says Award Package(s). Click this link to access your award packages. Click the Review Award Package link to review and accept the award package for your award. Please print your award package for your records.

Step 2: Please fill out and have your bank complete and sign the SF 1199A, Direct Deposit Sign-up Form. The information on the 1199A must match your SAM record. Be sure to include your DUNS and grant number on the form in Section 1F "Other." The SF 1199A should be sent directly from your financial institution to the FEMA Finance Center, via fax or mail to the Vendor Maintenance Office (see address below). The 1199A form will not be accepted unless it is received directly from the financial institution. Please pay careful attention to the instructions on the form.

FEMA Finance Center
Attn: Vendor Maintenance
P.O. Box 9001
Winchester, VA 22604

Secured Fax: (540) 504-2625
Email: FEMA-Finance@FEMA.DHS.gov

System for Award Management (SAM): Please ensure that your organization's name, address, DUNS number, EIN, and banking information are up to date in SAM and that the DUNS number used in SAM is the same one used to apply for all

FEMA awards. The System for Award Management is located at <http://www.sam.gov>. Future payments will be contingent on the information provided in the SAM; therefore it is imperative that the information is correct.

If you have any questions or concerns regarding the process to request your funds, please call (866) 927-5646.

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STEVEN DENHAM, Assistance Officer

U.S. Department of Homeland Security
Washington, D.C. 20472



AGREEMENT ARTICLES
Cooperating Technical Partners

GRANTEE: Miami-Dade County
PROGRAM: Cooperating Technical Partners
AGREEMENT NUMBER: EMW-2015-CA-00071-S01

TABLE OF CONTENTS

Article I	Assurances, Administrative Requirements and Cost Principles
Article II	Acknowledgement of Federal Funding from DHS
Article III	Activities Conducted Abroad
Article IV	Age Discrimination Act of 1975
Article V	Americans with Disabilities Act of 1990
Article VI	Best Practices for Collection and Use of Personally Identifiable Information (PII)
Article VII	Title VI of the Civil Rights Act of 1964
Article VIII	Civil Rights Act of 1968
Article IX	Copyright
Article X	Debarment and Suspension
Article XI	Drug-Free Workplace Regulations
Article XII	Duplication of Benefits
Article XIII	Energy Policy and Conservation Act
Article XIV	Reporting Subawards and Executive Compensation
Article XV	False Claims Act and Program Fraud Civil Remedies
Article XVI	Federal Debt Status
Article XVII	Fly America Act of 1974
Article XVIII	Hotel and Motel Fire Safety Act of 1990
Article XIX	Limited English Proficiency (Civil Rights Act of 1964, Title VI)
Article XX	Lobbying Prohibitions

5

Article XXI	Non-supplanting Requirement
Article XXII	Patents and Intellectual Property Rights
Article XXIII	Procurement of Recovered Materials
Article XXIV	Contract Provisions for Non-federal Entity Contracts under Federal Awards
Article XXV	SAFECOM
Article XXVI	Terrorist Financing E.O. 13224
Article XXVII	Title IX of the Education Amendments of 1972 (Equal Opportunity in Education Act)
Article XXVIII	Trafficking Victims Protection Act of 2000
Article XXIX	Rehabilitation Act of 1973
Article XXX	System of Award Management and Universal Identifier Requirements
Article XXXI	USA Patriot Act of 2001
Article XXXII	Use of DHS Seal, Logo and Flags
Article XXXIII	Whistleblower Protection Act
Article XXXIV	DHS Specific Acknowledgements and Assurances
Article XXXV	Disposition of Equipment Acquired Under the Federal Award
Article XXXVI	Prior Approval for Modification of Approved Budget
Article XXXVII	Acceptance of Post Award Changes

Article I - Assurances, Administrative Requirements and Cost Principles

Recipients of DHS federal financial assistance must complete OMB Standard Form 424B Assurances – Non-Construction Programs. Certain assurances in this document may not be applicable to your program, and the awarding agency may require applicants to certify additional assurances. Please contact the program awarding office if you have any questions.

The administrative and audit requirements and cost principles that apply to DHS award recipients originate from 2 C.F.R. Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, as adopted by DHS at 2 C.F.R. Part 3002.

Article II - Acknowledgement of Federal Funding from DHS

All recipients must acknowledge their use of federal funding when issuing statements, press releases, requests for proposals, bid invitations, and other documents describing projects or programs funded in whole or in part with Federal funds.

Article III - Activities Conducted Abroad

All recipients must ensure that project activities carried on outside the United States are coordinated as necessary with appropriate government authorities and that appropriate licenses, permits, or approvals are obtained.

Article IV - Age Discrimination Act of 1975

All recipients must comply with the requirements of the Age Discrimination Act of 1975 (42 U.S.C. § 6101 et seq.), which prohibits discrimination on the basis of age in any program or activity receiving Federal financial assistance.

Article V - Americans with Disabilities Act of 1990

All recipients must comply with the requirements of Titles I, II, and III of the *Americans with Disabilities Act*, which prohibits recipients from discriminating on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12101–12213).

Article VI - Best Practices for Collection and Use of Personally Identifiable Information (PII)

All recipients who collect PII are required to have a publically-available privacy policy that describes what PII they collect, how they use the PII, whether they share PII with third parties, and how individuals may have their PII corrected where appropriate.

Award recipients may also find as a useful resource the DHS Privacy Impact Assessments: Privacy Guidance and Privacy template respectively.

Article VII - Title VI of the Civil Rights Act of 1964

All recipients must comply with the requirements of Title VI of the *Civil Rights Act of 1964* (42 U.S.C. § 2000d et seq.), which provides that no person in the United States will, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Implementing regulations for the Act are found at 6 C.F.R. Part 21 and 44 C.F.R. Part 7.

Article VIII - Civil Rights Act of 1968

All recipients must comply with Title VIII of the Civil Rights Act of 1968, which prohibits recipients from discriminating in the sale, rental, financing, and advertising of dwellings, or in the provision of services in connection therewith, on the basis of race, color, national origin, religion, disability, familial status, and sex (42 U.S.C. § 3601 et seq.), as implemented by the Department of Housing and Urban Development at 24 C.F.R. Part 100. The prohibition on disability discrimination includes the requirement that new multifamily housing with four or more dwelling units—i.e., the public and common use areas and individual apartment units (all units in buildings with elevators and ground-floor units in buildings without elevators)—be designed and constructed with certain accessible features (see 24 C.F.R. § 100.201).

Article IX - Copyright

All recipients must affix the applicable copyright notices of 17 U.S.C. §§ 401 or 402 and an acknowledgement of Government sponsorship (including award number) to any work first produced under Federal financial assistance awards, unless the work includes any information that is otherwise controlled by the Government (e.g., classified information or other information subject to national security or export control laws or regulations).

Article X - Debarment and Suspension

All recipients must comply with Executive Orders 12549 and 12689, which provide protection against waste, fraud and abuse by debarment or suspending those persons deemed irresponsible in their dealings with the Federal government.

Article XI - Drug-Free Workplace Regulations

All recipients must comply with the *Drug-Free Workplace Act of 1988* (41 U.S.C. § 701 et seq.), which requires that all organizations receiving grants from any Federal agency agree to maintain a drug-free workplace. DHS has adopted the Act's implementing regulations at 2 C.F.R. Part 3001.

Article XII - Duplication of Benefits

Any cost allocable to a particular Federal award provided for in 2 C.F.R. Part 200, Subpart E may not be charged to other Federal awards to overcome fund deficiencies, to avoid restrictions imposed by Federal statutes, regulations, or terms and conditions of the Federal awards, or for other reasons. However, this prohibition would not preclude the non-Federal entity from shifting costs that are allowable under two or more Federal awards in accordance with existing Federal statutes, regulations, or the terms and conditions of the Federal awards.

Article XIII - Energy Policy and Conservation Act

All recipients must comply with the requirements of 42 U.S.C. § 6201 which contain policies relating to energy efficiency that are defined in the state energy conservation plan issues in compliance with this Act.

Article XIV - Reporting Subawards and Executive Compensation

a. Reporting of first-tier subawards.

1. *Applicability.* Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates \$25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in paragraph e. of this award term).

2. *Where and when to report.*

i. You must report each obligating action described in paragraph a.1. of this award term to <http://www.fsrs.gov>.

ii. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)

3. *What to report.* You must report the information about each obligating action that the submission instructions posted at <http://www.fsrs.gov> specify.

b. Reporting Total Compensation of Recipient Executives.

1. *Applicability and what to report.* You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if—

i. the total Federal funding authorized to date under this award is \$25,000 or more;

ii. in the preceding fiscal year, you received—

(A) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(B) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

iii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>.)

2. *Where and when to report.* You must report executive total compensation described in paragraph b.1. of this award term:

i. As part of your registration profile at <https://www.sam.gov>.

ii. By the end of the month following the month in which this award is made, and annually thereafter.

c. Reporting of Total Compensation of Subrecipient Executives.

1. *Applicability and what to report.* Unless you are exempt as provided in paragraph d. of this award term, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if—

i. in the subrecipient's preceding fiscal year, the subrecipient received—

(A) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(B) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and

ii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>.)

2. *Where and when to report.* You must report subrecipient executive total compensation described in paragraph c.1. of this award term:

- i. To the recipient.
- ii. By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (*i.e.*, between October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.

d. Exemptions

If, in the previous tax year, you had gross income, from all sources, under \$300,000, you are exempt from the requirements to report:

- i. Subawards,

And

- ii. The total compensation of the five most highly compensated executives of any subrecipient.

e. Definitions. For purposes of this award term:

1. *Entity* means all of the following, as defined in 2 CFR part 25:

- i. A Governmental organization, which is a State, local government, or Indian tribe;
- ii. A foreign public entity;
- iii. A domestic or foreign nonprofit organization;
- iv. A domestic or foreign for-profit organization;
- v. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

2. *Executive* means officers, managing partners, or any other employees in management positions.

3. *Subaward*:

- i. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.
- ii. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. ___ .210 of the attachment to OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations").
- iii. A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

4. *Subrecipient* means an entity that:

- i. Receives a subaward from you (the recipient) under this award; and
- ii. Is accountable to you for the use of the Federal funds provided by the subaward.

5. *Total compensation* means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

- i. *Salary and bonus.*
- ii. *Awards of stock, stock options, and stock appreciation rights.* Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.
- iii. *Earnings for services under non-equity incentive plans.* This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
- iv. *Change in pension value.* This is the change in present value of defined benefit and actuarial pension plans.

v. Above-market earnings on deferred compensation which is not tax-qualified.

vi. Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds \$10,000.

Article XV - False Claims Act and Program Fraud Civil Remedies

All recipients must comply with the requirements of 31 U.S.C. § 3729 which set forth that no recipient of federal payments shall submit a false claim for payment. See also 38 U.S.C. § 3801-3812 which details the administrative remedies for false claims and statements made.

Article XVI - Federal Debt Status

All recipients are required to be non-delinquent in their repayment of any Federal debt. Examples of relevant debt include delinquent payroll and other taxes, audit disallowances, and benefit overpayments. See OMB Circular A-129 and form SF-424B, item number 17 for additional information and guidance.

Article XVII - Fly America Act of 1974

All recipients must comply with Preference for U.S. Flag Air Carriers: (air carriers holding certificates under 49 U.S.C. § 41102) for international air transportation of people and property to the extent that such service is available, in accordance with the *International Air Transportation Fair Competitive Practices Act of 1974* (49 U.S.C. § 40118) and the interpretative guidelines issued by the Comptroller General of the United States in the March 31, 1981, amendment to Comptroller General Decision B-138942.

Article XVIII - Hotel and Motel Fire Safety Act of 1990

In accordance with Section 6 of the *Hotel and Motel Fire Safety Act of 1990*, 15 U.S.C. §2225a, all recipients must ensure that all conference, meeting, convention, or training space funded in whole or in part with Federal funds complies with the fire prevention and control guidelines of the *Federal Fire Prevention and Control Act of 1974*, as amended, 15 U.S.C. §2225.

Article XIX - Limited English Proficiency (Civil Rights Act of 1964, Title VI)

All recipients must comply with the *Title VI of the Civil Rights Act of 1964* (Title VI) prohibition against discrimination on the basis of national origin, which requires that recipients of federal financial assistance take reasonable steps to provide meaningful access to persons with limited English proficiency (LEP) to their programs and services. Providing meaningful access for persons with LEP may entail providing language assistance services, including oral interpretation and written translation. In order to facilitate compliance with Title VI, recipients are encouraged to consider the need for language services for LEP persons served or encountered in developing program budgets. Executive Order 13166, *Improving Access to Services for Persons with Limited English Proficiency* (August 11, 2000), requires federal agencies to issue guidance to recipients, assisting such organizations and entities in understanding their language access obligations. DHS published the required recipient guidance in April 2011, *DHS Guidance to Federal Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons*, 76 Fed. Reg. 21755-21768, (April 18, 2011). The Guidance provides helpful information such as how a recipient can determine the extent of its obligation to provide language services; selecting language services; and elements of an effective plan on language assistance for LEP persons. For additional assistance and information regarding language access obligations, please refer to the DHS Recipient Guidance <https://www.dhs.gov/guidance-published-help-department-supported-organizations-provide-meaningful-access-people-limited> and additional resources on <http://www.lep.gov>.

Article XX - Lobbying Prohibitions

All recipients must comply with 31 U.S.C. §1352, which provides that none of the funds provided under an award may be expended by the recipient to pay any person to influence, or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any Federal action concerning the award or renewal.

Article XXI - Non-supplanting Requirement

All recipients who receive awards made under programs that prohibit supplanting by law must ensure that Federal funds do not replace (supplant) funds that have been budgeted for the same purpose through non-Federal sources. Where federal statutes for a particular program prohibits supplanting, applicants or recipients may be required to demonstrate and document that a reduction in non-Federal resources occurred for reasons other than the receipt of expected receipt of Federal funds.

Article XXII - Patents and Intellectual Property Rights

Unless otherwise provided by law, recipients are subject to the Bayh-Dole Act, Pub. L. No. 96-517, as amended, and codified in 35 U.S.C. § 200 et seq. All recipients are subject to the specific requirements governing the development, reporting, and disposition of rights to inventions and patents resulting from financial assistance awards are in 37 C.F.R. Part 401 and the standard patent rights clause in 37 C.F.R. § 401.14.

Article XXIII - Procurement of Recovered Materials

All recipients must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 C.F.R. Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired by the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

Article XXIV - Contract Provisions for Non-federal Entity Contracts under Federal Awards

a. Contracts for more than the simplified acquisition threshold set at \$150,000.

All recipients who have contracts exceeding the acquisition threshold currently set at \$150,000, which is the inflation adjusted amount determined by Civilian Agency Acquisition Council and the Defense Acquisition Regulation Council as authorized by 41 U.S.C. §1908, must address administrative, contractual, or legal remedies in instance where contractors violate or breach contract terms and provide for such sanctions and penalties as appropriate.

b. Contracts in excess of \$10,000.

All recipients that have contracts exceeding \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement.

Article XXV - SAFECOM

All recipients who receive awards made under programs that provide emergency communication equipment and its related activities must comply with the SAFECOM Guidance for Emergency Communication Grants, including provisions on technical standards that ensure and enhance Interoperable communications.

Article XXVI - Terrorist Financing E.O. 13224

All recipients must comply with U.S. Executive Order 13224 and U.S. law that prohibit transactions with, and the provisions of resources and support to, individuals and organizations associated with terrorism. It is the legal responsibility of recipients to ensure compliance with the E.O. and laws.

Article XXVII - Title IX of the Education Amendments of 1972 (Equal Opportunity in Education Act)

All recipients must comply with the requirements of Title IX of the Education Amendments of 1972 (20 U.S.C. § 1681 et seq.), which provides that no person in the United States will, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance. Implementing regulations are codified at 6 C.F.R. Part 17 and 44 C.F.R. Part 19

Article XXVIII - Trafficking Victims Protection Act of 2000

All recipients must comply with the requirements of the government-wide award term which implements Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. § 7104). This is implemented in accordance with OMB Interim Final Guidance, Federal Register, Volume 72, No. 218, November 13, 2007. Full text of the award term is located at 2 CFR § 175.15.

Article XXIX - Rehabilitation Act of 1973

All recipients of must comply with the requirements of Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. § 794, as amended, which provides that no otherwise qualified handicapped individual in the United States will, solely by reason of the handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or

activity receiving Federal financial assistance. These requirements pertain to the provision of benefits or services as well as to employment.

Article XXX - System of Award Management and Universal Identifier Requirements

A. Requirement for System of Award Management

Unless you are exempted from this requirement under 2 CFR 25.110, you as the recipient must maintain the currency of your information in the SAM until you submit the final financial report required under this award or receive the final payment, whichever is later. This requires that you review and update the information at least annually after the initial registration, and more frequently if required by changes in your information or another award term.

B. Requirement for unique entity identifier

If you are authorized to make subawards under this award, you:

1. Must notify potential subrecipients that no entity (see definition in paragraph C of this award term) may receive a subaward from you unless the entity has provided its unique entity identifier to you.
2. May not make a subaward to an entity unless the entity has provided its unique entity identifier to you.

C. Definitions

For purposes of this award term:

1. *System of Award Management (SAM)* means the Federal repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the SAM Internet site (currently at <http://www.sam.gov>).
2. *Unique entity identifier* means the identifier required for SAM registration to uniquely identify business entities.
3. *Entity*, as it is used in this award term, means all of the following, as defined at 2 CFR part 25, subpart C:
 - a. A Governmental organization, which is a State, local government, or Indian Tribe;
 - b. A foreign public entity;
 - c. A domestic or foreign nonprofit organization;
 - d. A domestic or foreign for-profit organization; and
 - e. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.
4. *Subaward*:
 - a. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.
 - b. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see 2 CFR 200.330).
 - c. A subaward may be provided through any legal agreement, including an agreement that you consider a contract.
5. *Subrecipient* means an entity that:
 - a. Receives a subaward from you under this award; and
 - b. Is accountable to you for the use of the Federal funds provided by the subaward.

Article XXXI - USA Patriot Act of 2001

All recipients must comply with requirements of the *Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act* (USA PATRIOT Act), which amends 18 U.S.C. §§ 175-175c. Among other things, the USA PATRIOT Act prescribes criminal penalties for possession of any biological agent, toxin, or delivery system

of a type or in a quantity that is not reasonably justified by a prophylactic, protective, bona fide research, or other peaceful purpose.

Article XXXII - Use of DHS Seal, Logo and Flags

All recipients must obtain DHS's approval prior to using the DHS seal(s), logos, crests or reproductions of flags or likenesses of DHS agency officials, including use of the United States Coast Guard seal, logo, crests or reproductions of flags or likenesses of Coast Guard officials.

Article XXXIII - Whistleblower Protection Act

All recipients must comply with the statutory requirements for whistleblower protections (if applicable) at 10 U.S.C § 2409, 41 U.S.C. 4712, and 10 U.S.C. § 2324, 41 U.S.C. §§ 4304 and 4310.

Article XXXIV - DHS Specific Acknowledgements and Assurances

All recipients must acknowledge and agree—and require any sub-recipients, contractors, successors, transferees, and assignees acknowledge and agree—to comply with applicable provisions governing DHS access to records, accounts, documents, information, facilities, and staff.

1. Recipients must cooperate with any compliance review or complaint investigation conducted by DHS.
2. Recipients must give DHS access to and the right to examine and copy records, accounts, and other documents and sources of information related to the grant and permit access to facilities, personnel, and other individuals and information as may be necessary, as required by DHS regulations *and* other applicable laws or program guidance.
3. Recipients must submit timely, complete, and accurate reports to the appropriate DHS officials and maintain appropriate backup documentation to support the reports.
4. Recipients must comply with all other special reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.
5. If, during the past three years, the recipient has been accused of discrimination on the grounds of race, color, national origin (including limited English proficiency), sex, age, disability, religion, or familial status, the recipient must provide a list of all such proceedings, pending or completed, including outcome and copies of settlement agreements to the DHS awarding office and the DHS Office of Civil Rights and Civil Liberties.
6. In the event any court or administrative agency makes a finding of discrimination on grounds of race, color, national origin (including limited English proficiency), sex, age, disability, religion, or familial status against the recipient, or the recipient settles a case or matter alleging such discrimination, recipients must forward a copy of the complaint and findings to the DHS Component and/or awarding office.

The United States has the right to seek judicial enforcement of these obligations.

Article XXXV - Disposition of Equipment Acquired Under the Federal Award

When original or replacement equipment acquired under this award by the recipient or its sub-recipients is no longer needed for the original project or program or for other activities currently or previously supported by DHS/FEMA, you must request instructions from DHS/FEMA to make proper disposition of the equipment pursuant to 2 C.F.R. § 200.313.

Article XXXVI - Prior Approval for Modification of Approved Budget

Before making any change to the DHS/FEMA approved budget for this award, you must request prior written approval from DHS/FEMA where required by 2 C.F.R. § 200.308. For awards with an approved budget greater than \$150,000, you may not transfer funds among direct cost categories, programs, functions, or activities without prior written approval from DHS/FEMA where the cumulative amount of such transfers exceeds or is expected to exceed ten percent (10%) of the total budget DHS/FEMA last approved. You must report any deviations from your DHS/FEMA approved budget in the first Federal Financial Report (SF-425) you submit following any budget deviation, regardless of whether the budget deviation requires prior written approval.

Article XXXVII - Acceptance of Post Award Changes

In the event FEMA determines that changes are necessary to the award document after an award has been made, including changes to period of performance or terms and conditions, recipients will be notified of the changes in writing. Once notification has been made, any subsequent request for funds will indicate recipient acceptance of the changes to the award. Please call the FEMA/GMD Call Center at (866) 927-5646 or via e-mail to ASK-GMD@dhs.gov if you have any questions.

Personnel	1149897
Unallocated Charges	0
Fringe Benefits	0
Travel	0
Equipment	0
Supplies	0
Contractual	100103
Construction	0
Indirect Charges	0
Other	0
Total	1250000

Obligating Document for Award/Amendment

1a. **AGREEMENT NO.** 2. 3. **RECIPIENT NO.** 4. **TYPE OF ACTION** 5. **CONTROL NO.**
 EMW-2015-CA-00071-S01 AMENDMENTV00087287 AWARD A432086N

NO.

6. **RECIPIENT NAME AND ADDRESS**
 Miami-Dade County
 Stephen P. Clark Center
 111 NW 1st Street, 19th Floor
 Miami, FL, 33128

7. **ISSUING FEMA OFFICE AND ADDRESS**
 Grants Management Division
 3003 Chamblee Tucker Road
 Atlanta, GA 30341
 POC: 770-220-5200

8. **PAYMENT OFFICE AND ADDRESS**
 Grant Operations
 3003 Chamblee Tucker Road
 Atlanta, GA 30341

9. **NAME OF RECIPIENT PROJECT OFFICER**
 Marina Blanco-Pape, P.E., MSME, B. Arch

10. **NAME OF FEMA PROJECT COORDINATOR**
 Laura Algeo
 Phone: 770-220-5515
 E-mail: Laura.Algeo@fema.dhs.gov

11. **EFFECTIVE DATE OF THIS ACTION**
 10/01/2015

12. **METHOD OF PAYMENT PARS**

13. **ASSISTANCE ARRANGEMENT**
 Cost Reimbursement

14. **PERFORMANCE PERIOD**
From: 10/01/2015 **To:** 09/30/2019
Budget Period
 10/01/2015 09/30/2019

15. DESCRIPTION OF ACTION

a. (Indicate funding data for awards or financial changes)

PROGRAM NAME ACRONYM	CFDA NO.	ACCOUNTING DATA (ACCS CODE) XXXX-XXX-XXXXXX-XXXXX-XXXX-XXXX-X	PRIOR TOTAL AWARD	AMOUNT AWARDED THIS ACTION + OR (-)	CURRENT TOTAL AWARD	CUMULATIVE NON-FEDERAL COMMITMENT
Cooperating Technical Partners	97.045	2015-44-H112-R042--4101-D:A432086N \$ 1,250,000.00	\$0.00	\$1,250,000.00	\$1,250,000.00	\$0.00
TOTALS			\$0.00	\$1,250,000.00	\$1,250,000.00	\$0.00

b. To describe changes other than funding data or financial changes, attach schedule and check here.
 N/A

16 a. **FOR NON-DISASTER PROGRAMS: RECIPIENT IS REQUIRED TO SIGN AND RETURN THREE (3) COPIES OF THIS DOCUMENT TO FEMA (See Block 7 for address)**
 Cooperating Technical Partners recipients are not required to sign and return copies of this document. However, recipients should print and keep a copy of this document for their records.

16b. **FOR DISASTER PROGRAMS: RECIPIENT IS NOT REQUIRED TO SIGN**
 This assistance is subject to terms and conditions attached to this award notice or by incorporated reference in program legislation cited above.

17. **RECIPIENT SIGNATORY OFFICIAL (Name and Title)**
 Carlos Gimenez, Mayor (Authorizing Official) **DATE** 10/13/2015

18. **FEMA SIGNATORY OFFICIAL (Name and Title)**
 RACQUEL HAYNES, **DATE** 09/18/2015

ATTACHMENT B

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NOV 02 2015

STORMWATER UTILITY
PLANNING DIVISION

U.S. Department of Homeland Security
Region IV
3003 Chamblce-Tucker Road
Atlanta, GA 30341



FEMA

October 13, 2015

Ms. Marcia Steelman
Miami-Dade DERM
701 NW 1 Ct.
Miami, FL 33136

Dear Ms. Steelman:

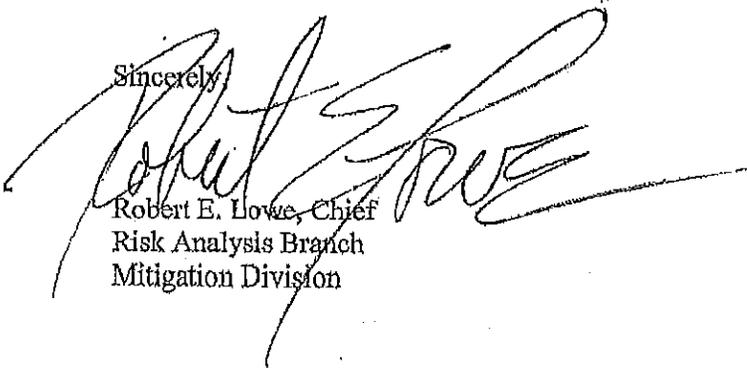
I am very pleased to announce that Miami-Dade County has now fully executed its fiscal year 2015 (CTP) Program Agreements. Attached is your signed original Mapping Activity Statement (MAS), for Flood Risk Projects (MAS No. FY15.01).

This MAS details the combined floodplain mapping effort between Miami-Dade County and the Federal Emergency Management Agency (FEMA). We are pleased that the County is undertaking these activities as part of its CTP collaboration.

We look forward to receiving your first submittals in accordance with your detailed schedule. The date that you received your funding through the Cooperative Agreement was September 22, 2015. Your MAS agreement was fully executed on September 9, 2015; please use September 22, 2015 as your Notice to Proceed from FEMA.

We anticipate continuing to work closely with your office throughout this project. We will be glad to provide any assistance we can to help with this groundbreaking program. If further assistance is needed, please call Ms. Kristen Martinenza at (770) 220-3174, for more information.

Sincerely,


Robert E. Lowe, Chief
Risk Analysis Branch
Mitigation Division

Enclosure

16

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NOV 02 2015

STORMWATER UTILITY
PLANNING DIVISION



FEMA

**Miami-Dade County
COOPERATING TECHNICAL PARTNERS
FLOOD RISK PROJECT
MAPPING ACTIVITY STATEMENT**

Mapping Activity Statement No. FY15.01

The Flood Risk Project described in this Mapping Activity Statement (MAS) dated June 17, 2015 shall be completed in accordance with the Cooperating Technical Partner (CTP) Partnership Agreement dated March 17, 2003, between Miami-Dade County (herein referred to as "CTP") and the Federal Emergency Management Agency (FEMA).

Contents

SECTION 1—OBJECTIVE AND SCOPE	3
Project Management	8
Project Risk Identification and Mitigation.....	9
Perform Discovery	10
Perform Community Engagement and Project Outreach	13
Develop Non-Regulatory Products	15
Perform Field Survey.....	Error! Bookmark not defined.
Develop Topographic Data	18
Perform Independent QA/QC: Topographic Data	20
Prepare Basemap.....	21
Perform Independent QA/QC: Basemap	23
Develop Hydrologic Data	23
Perform Independent QA/QC: Hydrologic Data	25
Develop Hydraulic Data	26
Perform Independent QA/QC: Hydraulic Data	27
Perform Coastal Analysis	Error! Bookmark not defined.
Perform Independent QA/QC: Coastal Analysis	Error! Bookmark not defined.
Perform Floodplain Mapping.....	28
Perform Independent QA/QC: Floodplain Mapping	30
Develop FIRM Database	31
Produce Preliminary Map Products	Error! Bookmark not defined.
Perform Independent QA/QC: Produce Preliminary Map Products.....	Error! Bookmark not defined.
Distribute Preliminary Map Products	Error! Bookmark not defined.
Post-Preliminary Map Production	Error! Bookmark not defined.
SECTION 2—Technical and Administrative Support Data Submittal	31
SECTION 3—PERIOD OF PERFORMANCE	33
SECTION 4—FUNDING/LEVERAGE (For CTP, OFA and/or Community)	33
SECTION 5—STANDARDS.....	35
SECTION 6— SCHEDULE.....	40
SECTION 7—CERTIFICATIONS	41
SECTION 8—TECHNICAL ASSISTANCE AND RESOURCES	42
SECTION 9—CONTRACTORS	42
SECTION 10—REPORTING	42
SECTION 11—PROJECT COORDINATION	45
SECTION 12—POINTS OF CONTACT.....	45

SECTION 1—OBJECTIVE AND SCOPE

The objective of the Flood Risk Project documented in this MAS is to develop and/or support flood hazard data and program-related tasks through completing technical risk analysis and mapping activities. These activities may or may not result in a new or updated Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) report for one or more communities within the project area.

All processes and deliverables shall be completed in accordance with the Federal Emergency Management Agency (FEMA)'s Standards for Flood Risk Analysis and Mapping, dated August 22, 2013, located on FEMA's website at www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping. These guidelines and standards (www.fema.gov/media-library/assets/documents/35313) define the specific implementation of the statutory and regulatory requirements for NFIP flood risk analysis and mapping, and address the performance of flood risk projects, processing of letters of map change and related Risk MAP activities. The guidelines and standards are organized in a hierarchy:

Program Standards – A required element of the Risk MAP program. Exceptions to program standards can only be granted by program leadership through an exemption process.

Working Standards – A required element usually at a higher level of specificity than the program standards. Working standards are applied by specialists (engineers, planners, technicians, scientists, etc.) and have minimal ethical, political and legal impacts to the program. FEMA Regional Offices may occasionally grant exceptions to these requirements.

Guidance – A recommended approach to meet the standard. Accepted approaches are not limited to this recommended approach; mapping partners may use other methods to meet or exceed the standards.

Best Practices/Lessons Learned – Any method, in addition to guidance, that meets or exceeds the standard. Best practices are shared by regions and mapping partners following successful approaches to program activities.

All the standards for the Risk MAP program have been published as a FEMA policy. This policy supersedes all of the standards included in the previous *Guidelines and Specifications for Flood Hazard Mapping Partners* and associated procedure memorandums. However, useful guidance is still available in these documents (www.fema.gov/media-library/assets/documents/34953). Additional information can be found on FEMA's website at www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping.

The watersheds and jurisdictions, in which Flood Risk Projects will be performed, as well as their applicable project type/activities, are summarized in Table 1.1 *Flood Risk Project Watersheds and Jurisdictions*. All applicable project activities should be identified in the last column of the table for each watershed, county/parish or community listed in Table 1.1 (e.g., Discovery only, Discovery and Non-Reg. Products, FIRM/FIS updates, Prelim Distribution, Post-Preliminary Processing). Watershed Reports will be created and distributed to counties/parishes and communities identified as including Discovery in the Project Type (refer to PM 41 for exceptions).

Table 1.1 – Flood Risk Project Watersheds and Jurisdictions

Watershed	HUC-8 Code/HUC-12 Code	Counties/Parishes and Communities Included in Project	Project Type (Topo Only, Discovery, Non-Reg. Products, FIRM/FIS, etc.)
Snake Creek (C-9)	030902061401	Miami-Dade County (120635), Hialeah (120643), Hialeah Gardens (120644), Miami Lakes (120686).	FIRM, FIS, Non-Regulatory
Snake Creek/ Royal Glades Canal (C-9)	030902061402	Miami-Dade County (120635), Miami Gardens (120345), North Miami Beach (120656).	FIRM, FIS, Non-Regulatory
Biscayne Canal (C-8)	030902061403	Miami-Dade County (120635), Biscayne Park (120638), Hialeah (120643), Hialeah Gardens (120644), Miami Lakes (120686), Miami Shores (120652), North Miami (120655), North Miami Beach (120656), Opa-Locka (120657).	FIRM, FIS, Non-Regulatory

Additionally, the CTP involved in this project will develop new and/or updated flood hazard data as summarized in Table 1.2, Total Stream Mile Counts by Type of Study. The FIRM and FIS report for the watersheds and areas identified in Table 1.2 will be produced in the North American Vertical Datum of 1988 (NAVD88).

Table 1.2 – Total Stream Mile Counts by Type of Study

Type of Study	Watershed or Jurisdiction	Coastal	Detailed (Enhanced Level 1)	Limited Detailed (Enhanced Level 2)	Approximate (Base Level Study)	Re-delineation	Verified Digital Conversion
Effective Flood Insurance Study	Snake Creek (C-9) 03090206140 1	0	54.0	0	0		
Effective Flood Insurance Study	Snake Creek /Royal Glades Canal (C-9) 03090206140 2	0	34.1	0	0		
Effective Flood Insurance Study	Biscayne Canal (C-8) 03090206140 3	0	32.1	0	0		

*Details on type of study are documented in the Flood Risk Project recommendations section of the Discovery Report Deliverable.

This Flood Risk Project will be completed by the following entities:

- Miami-Dade County

The CTP shall notify FEMA and all applicable parties of all meetings with community officials, and other relevant meetings, at least two weeks prior to the meeting (with as much notice as possible). FEMA and/or its contractor may or may not attend the community meetings.

The CTP shall maintain an archive of all data submitted. All supporting data must be retained for three years from the date a funding recipient submits its final expenditure report to FEMA.

The CTP is responsible for the implementation of an independent Quality Assurance/Quality Control (QA/QC) plan for all assigned activities. The CTP will submit a Summary Report that describes and provides the results of all automated or manual QA/QC review steps. The report should include the process for all assigned activities.

Independent QC review activities may be performed by the CTP or FEMA's contractor at the discretion of FEMA. If the CTP will be responsible for the QC review, the entity that will perform QC should be

21

identified in this MAS. The CTP will need to submit its QC plan to the Regional Project Officer for approval.

Note that FEMA will also be performing periodic audits and overall study/project management to ensure quality, including National Quality Reviews (QRs) required per FEMA standards for all flood risk projects. Whether or not the CTP performs the Independent QC review mentioned in the preceding paragraph, the CTP will be responsible for addressing any and all comments resulting from National QRs and any additional independent QA reviews required by the FEMA Regional Office, including re-submittal of deliverables as needed to pass technical or quality review. The CTP will submit regulatory products to FEMA's designated National QR reviewer for review and approval prior to public issuance.

Metadata is required for certain activities. The following table shows the structure of the metadata for the different activities

Deliverables	Specification Document
Basemap	FEMA NFIP Metadata Profile for Basemap Datasets
Orthophotos	FEMA NFIP Metadata Profile for Orthoimagery Datasets
FIRM	FEMA NFIP Metadata Profile for Draft, Preliminary, and Final FIRM
Floodplain Mapping	FEMA NFIP Metadata Profile for Floodplain Mapping and
Flood Risk Database	FEMA NFIP Metadata Profile for Flood Risk Datasets
Hydraulics	FEMA NFIP Metadata Profile for Hydraulics Datasets
Hydrology	FEMA NFIP Metadata Profile for Hydrology Datasets
Survey	FEMA NFIP Metadata Profile for Survey Datasets
Terrain	FEMA NFIP Metadata Profile for Terrain Datasets

Mapping Partners are required to comply with *Appendix M: Data Capture Standards (DCS)*, March 2009 of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* and *Draft User Guide for Appendix M*, March 2009 to provide a consistent framework for submittal, storage, and retrieval of the technical and administrative data needed for the Flood Insurance Study (FIS) or Flood Insurance Rate Map (FIRM) revisions. *Appendix M: Data Capture Standards*, March 2009 replaces the previously published *Appendix M: Guidance for Preparing and Maintaining Technical and Administrative Support Data*; *Appendix N: Data Capture Standards*; and *Appendix N: Data Capture Guidelines*. Mapping Partners are required to upload deliverables complying with this guidance at each of the major production

data capture points in the Mapping Information Platform (MIP) workflow. Major production data capture points include: scoping, base map, terrain, survey, hydrologic analysis, hydraulic analysis, alluvial fan analysis, coastal analysis, floodplain mapping for re-delineation and digital conversion, and post-preliminary data for studies. National Flood Insurance Program (NFIP) metadata are required for orthoimagery, terrain, survey, hydrology, hydraulics, alluvial fans, coastal, and floodplain mapping. Certification of submitted data for FEMA-funded studies is required. Although certification requirements are included for each workflow step, each Mapping Partner would need to complete and submit only one product certification when their work on a project is complete.

Metadata files should be provided in xml format. The metadata files must conform to the requirements of the Metadata Profiles Technical Reference, published in 2014 or later. All metadata files should be FGDC compliant.

FIRM-related tasks require a passing QC Report from FEMA's National FIRM database auto-validation tool for Quality Review (QR) #1, #2, and #5 as required in FEMA standards. Training materials for this step are available on the Mapping Information Platform (MIP) at MIP User Care>Training Materials.

FEMA will provide download/upload capability for data submittals through the MIP located at <https://hazards.fema.gov>. As each activity is completed, the data must be submitted to the MIP.

The CTP assigned the activity will respond to any comments generated as a result of the mandatory quality control checks by the Production and Technical Services contractor (PTS). The PTS QC process is nationally funded and required on each non-PTS study.

In cooperation with the FEMA Project Officer, a Project Management Team (PMT) will be established by the CTP consisting of representatives from the CTP, FEMA's regional engineer, and other appropriate parties (e.g., FEMA contractors) at the discretion of FEMA. The PMT will be responsible for coordinating the activities identified in this MAS. The FEMA Region will be provided with documentation identifying the established PMT. The PMT will be identified within thirty (30) days of the award.

Earned Value Data Entry: The MIP Workflow is designed to track the Earned Value of Flood Risk Projects. This information is automatically calculated by the MIP, using the Actual cost and schedule of work performed, or "actuals", and comparing them to the expected cost and schedule of work performed, or "baseline".

Once the FEMA Regional Office has funded a project, FEMA or its contractor will complete the "Obligate Project Funds" screen in the MIP. This step establishes the baseline for the project in the MIP, using the cost and schedule information for each task as outlined in this document.

The MIP study workflow allows FEMA and the CTP to manage the status of these projects at a task level. The cost and schedule information, updated monthly by the CTP for each contracted task, is compared to the baseline established for those tasks. This information is rolled up to a project level and monitored by the FEMA Region to assess progress and Earned Value.

Earned Value data entry involves updating cost, schedule and performance (physical percent complete) in the MIP by the CTP each month for each assigned task.

The CTP may contact the region to obtain the guidance document *Risk MAP Products in the MIP* which explains how Non-Regulatory Products shall be submitted through the MIP. The guidance also explains how performance will be tracked for Non-Regulatory Products.

Once the baseline has been established in the MIP, the CTP shall input the performance and actual cost to date for all tasks within each project for which the CTP is responsible. This must be completed at a minimum once every thirty days and at the completion of the task. When a task is completed, including all QA/QC activities in this MAS plus the Quality Control Reviews required by FEMA standards, the CTP shall enter 100% complete, enter the actual completion cost, and the actual completion date within the Manage Data Development, Manage Preliminary Map Production, or Manage Post Preliminary Processing tasks as applicable. The "Manage" tasks remain open and accept updates for up to 90 days after the completion of the last producer task in each module. The MIP shall also be populated with appropriate leverage information regarding who (CTP or community) paid for the data provided and the amount of data used by the Flood Risk Project. The CTP will maintain a Schedule Performance Index (SPI) and Cost Performance Index (CPI) of at least 0.92. Special Problem Reports (SPRs) explaining any variance must be submitted in a timely manner as required.

The Project Officer, as needed, may request additional information on status of the project on an ad hoc basis.

Project Management

Responsible Mapping Partner: Miami-Dade County

Scope: Project Management is the active process of planning, organizing, and managing resources toward the successful accomplishment of pre-defined project goals and objectives. The CTP will coordinate with the FEMA Regional Office with respect to Project Management activities and technical mapping activities.

In addition to general project coordination, the consultant will attend three (3) milestone review meetings with FEMA and prepare and submit the project minutes.

Standards: All Project Management work shall be performed in accordance with the standards specified in Section 5 – Standards:

- Management of SPI/CPI performance for an organization
- Management of adherence to scope of work and quality of work for an organization

Deliverables:

- Monthly Earned Value data reporting through the MIP with variance explanations to support management of technical mapping activities within specified timeframe, for both Regulatory and Non-Regulatory Products;
- Overall project QA/QC maintenance information, such as maintaining a QA/QC log and providing a QA/QC approach to FEMA for review and approval.
- Report with the description of the progress achieved to date.
- Draft deliverables corresponding to the progress milestone achieved at the time with metadata files.

Project Risk Identification and Mitigation

Responsible Mapping Partner: Miami-Dade County

Threats to the planned completion of a project may come from various sources. Risks should be identified during the planning phase and monitored throughout the project so that potential impact can be assessed and solution strategies developed and implemented as needed.

Miami-Dade County will conduct an Integrated Baseline Review (IBR, as required by FEMA, to identify opportunities for all staff involved in the project to develop and maintain a mutual understanding of the project objectives and risks. The table below identifies some preliminary risks to the completion of the project, based on previous experience, during the last map update.

Table 1.3 – Project Risk Identification

Project Risk	Potential Impact	Solution Strategy
Natural Disaster disruption	Delays on milestones due to reduced staff in the office location	Robust backup systems and alternative workstations/ office locations
Computer system failure	Delays on milestones due to reduced staff in the office location	Robust backup systems and alternative workstations/office locations
Operational changes in the primary canal system, modifying assumptions on the flood plain mapping, resulting in changes of base flood elevation	Impact on the completion date	Stakeholder involvement throughout the process, to anticipate implementation of major on-going projects.
Inconsistencies on the application of mapping methods	Impact on the completion date	Close coordination and training of technical staff involved in the project.
Lack of acceptance of new Base Flood Elevations (BFEs) and inundation limits	Impact on the completion date	Stakeholder involvement throughout the process

25

Perform Discovery

Responsible Mapping Partner: Miami-Dade County

Scope: Discovery is already on-going. The process established the priority and sequence for the flood map updates. Miami-Dade County is prioritizing the 2 basins that had not been updated during the last map update in 2009. Discovery is the process of evaluating a watershed in order to determine what components of a Flood Risk Project may be appropriate. A Flood Risk Project may include regulatory mapping, risk assessment, Mitigation Planning Technical Assistance, and outreach and communications assistance. The Flood Risk Project may include one of these elements or all of these elements, depending on the need in the watershed. Discovery is divided into six main activities – Watershed Stakeholder Coordination, Data Analysis, Discovery Meeting, Post-Meeting Coordination, Database Updates and Project Refinement.

Stakeholder Coordination

Stakeholder engagement begins with up-front coordination with the Project Management Team to plan the Discovery effort, identify roles and responsibilities, and plan the level of stakeholder engagement. Coordination with this team, including state and FEMA representatives with mapping, risk, and mitigation expertise, should be ongoing throughout Discovery. In addition to collecting data from national and state datasets and mitigation plans, information about communities is collected through two-way information exchange before the Discovery Meeting.

Introductory and Pre-call Screenings - Introductory and Pre-Call Screenings activities include conducting a pre-Discovery interview with each of the key influencers to ensure understanding of FEMA's involvement with the community, as well as more information on what is important to the influencer.

Data Analysis

Data and information collected during the initial stakeholder engagement phase, along with a robust, thoughtful analysis, is included in a Discovery Report and Map. A draft version of the Discovery Report and Map shall be shared with stakeholders before or during the Discovery Meeting.

First Order Approximation - First Order Approximation activities include model-based assessments to verify quality and relevance of the effective flood study information. Assessments should also be used to determine if significant changes or improvements in flood risk data are likely to result from an updated flood study.

Discovery Meeting

All communities and other stakeholders as identified by the Project Management Team are invited to the Discovery Meeting. The Discovery Map will act as a facilitation tool during the meeting to support discussions about Risk MAP, the watershed vision, local flood-related concerns and potential mitigation strategies, regulatory map study needs, risk assessment, and local communication capabilities and responsibilities. Newly-identified or improved mitigation strategies should be documented at the meeting, as well as support needed for communities to advance mitigation actions.

Post Meeting Coordination

After the Discovery Meeting, the Mapping Partner shall provide meeting notes, outreach materials, and updated contacts to the attendees and stakeholders. The Mapping Partner will update the Discovery Map and Report to reflect the meeting discussions and include recommendations for a Flood Risk Project. The final Discovery Map, Report, and appropriate data are provided to stakeholders. Additionally a list of all

Actions Identified and Advanced as discussed with the communities will be provided to FEMA within 2 weeks after Meetings held.

Database Updates

After the Discovery Meeting, four databases must be updated:

- The CNMS Regional File Geodatabase shall be updated to reflect information gathered during Discovery, including stream reaches identified for study /restudy and any areas with remaining needs and/or requests as appropriate;
 - Updated, cleaned, line work reflecting any new validation that has changed as a result of evaluation or determination of study during Discovery;
 - Supporting documentation for new validation;
 - An updated requests layer containing all requests made as part of Discovery;
 - A self-certification document outlining the planned and/or funded scope and comments; and
 - NVUE data within the CNMS database will be updated to reflect the status of all streams within the watershed, whether scoped or not;
- The National Digital Elevation Program website must be updated, as appropriate, to reflect data collected;
- The National Digital Orthophoto Program website must be updated, as appropriate, to reflect data collected; and
- The final Discovery Report, Map, and appropriate data must be uploaded to the MIP

Project Refinement

If it is decided that a Flood Risk Project will move forward, FEMA and the CTP shall work with communities to refine the elements of the project, and update the Discovery Report accordingly FEMA and the CTP will coordinate with communities to develop a project charter to document the Flood Risk Project, roles and responsibilities of the community and the Project Team. Project charters are distributed to each community affected by a planned Flood Risk Project and the CTP will track the number of signed charters.

Standards: All Discovery process work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: The CTP shall make the following products available to FEMA by uploading the digital data to the MIP:

- Watershed Engagement Plan;
- Community Assessment Tool;
- Final Discovery Map;
- Update leverage in MIP, as appropriate;
- Charter records: the number of communities that were offered a charter and the number of signed charters returned to the CTP from communities;

- Updates made to the Action Tracker for Actions Identified and Advanced as discussed with the community;
- CNMS Regional File Geodatabase updated to reflect changes to the existing inventory in study extents and attributes as identified during the Discovery process. The updated CNMS Regional File Geodatabase shall be delivered to the respective FEMA Region or its designee within 15 days of completion of Discovery;
- Leverage data: For leverage data, evidence that the providing partner is aware of the delivery deadlines and scope for deliverable products, and that they are capable of meeting those requirements.
- QA/QC Plan for the review of the mapping project outlined in this MAS. This will include the checklists developed for that review in accordance with the schedule included in Section 6 -- Schedule; and
- Updated list of CEO or local EPA contacts or a report from CIS showing this information has been updated.

Reports needed are as follows:

- Final Discovery Report, including final or recommended Flood Risk Project activities, the ability of these activities to meet metrics, and assessment of community communication capabilities;
- A report documenting the leverage data available from communities, including evidence that the providing partner is aware of the delivery deadlines and scope for deliverable products, and that they are capable of meeting those requirements;
- A report including a list of watersheds and affected communities to undergo Flood Risk Projects and a clear assessment of ability of the proposed project to meet metrics;
- A report showing that, if obtained from non-federal sources, information on available terrain and ortho-imagery data has been entered into the NDEP and NDOP project tracking Web sites, respectively;
- A report documenting levee information transmitted to the FEMA Regional Office and/or the PMT; and
- Other deliverables including correspondence, reports, agenda, maps, meeting notes and summaries, tabular data, and geospatial files to be submitted throughout the discovery process.

Perform Community Engagement and Project Outreach

NOTE: The performance of community engagement and outreach takes place throughout the life of the flood risk project. Work with your region to develop a Project Outreach and Communication Plan (POCP). An alternate tracking method is acceptable with approval from the FEMA Regional Office. Up to 10% of the total budget can be used for Community Engagement. An additional (up to) 10% of the total budget can be used for Project Outreach.

Responsible Mapping Partner: Miami-Dade County

Scope:

Community Engagement

This task includes activities for the CTP to provide supplementary support to the Mapping Partner responsible for the Community Engagement activities funded through the Project Management MAS or other contracts. Community Engagement activities funded through this MAS shall not supplant or duplicate Community Engagement activities funded through other grants or contracts.

The activities listed below are intended to support on-going project efforts that foster working relationships between federal, state, and local governments with private and public interests in order to reduce the frequency of natural disasters where a community's interaction with a natural hazard may be altered or averted. These activities should be reviewed for implementation throughout the Risk MAP lifecycle and the defined meetings within it.

It is expected that including these approaches will develop actionable measures within the Flood Risk Project footprints. These activities should be implemented as directed by the Project Officer to increase the:

- Understanding of natural hazard risk within a community;
- Support local efforts to reduce natural hazard risk within a community or watershed area; and
- Effectiveness of meetings and engagement opportunities with communities throughout the Risk MAP lifecycle.

Note: Community action cannot be purchased; however, it can be influenced and advanced by proper project and communications planning throughout the Risk MAP process. Strategic communications planning can be assisted by the tools and tactics identified below.

Introductory and Pre-Call Screenings. For each of the top influencers, conduct a pre-Discovery interview (funded as part of the Discovery task) to ensure understanding of FEMA's involvement with the community, as well as more information on what's important to the influencer.

Action Identification and Planning. Support for communities to identify and/or advance mitigation opportunities, and/or select amongst alternatives, through the provision of data, analysis and/or strategic support. Based on information learned from conversations with community influencers, as well as the mitigation plan, and Discovery Meeting, identify the top 2-3 actions to focus on advancing within each community, and create a plan to advance them.

Meetings

This Flood Risk Project will include in-person opportunities to engage communities, build risk awareness, increase capabilities for risk communication, and stimulate mitigation action at the local level. The overarching goal is to create a climate of understanding and ownership of the mapping process at the

State and local levels. Well-planned and executed community engagement and project outreach can reduce political stress, confrontation in the media, and public controversy, which can arise from lack of information, misunderstanding, or misinformation. These engagement and outreach activities also can assist the CTP, FEMA and other members of the PMT in responding to congressional inquiries.

The actual number of meetings will be determined based on the risk and need at the local level and determined as part of developing the project-based communication plan. Provisions may be made for remote access video/audio feeds for those that cannot attend in person. These opportunities consist of:

Project Initiation Meeting/Coordination Call. This meeting will serve to introduce the communities to the PMT, project scope and timeline, expectations for communities with risk communication, methods and data to be used mapping efforts, and to answer any local questions about the project. This can be held as an in-person meeting, webinar, or conference call. *Note: Though not required, this call is especially helpful for introducing the project to the involved communities when 6 months or more has passed since the post-Discovery coordination.*

Discovery Meeting. This meeting is held to engage communities, understand the communities' and watershed's needs, inform the purpose of FEMA's engagement, balance FEMA resources, and plan project execution. Discovery was held May 30, 2014 and therefore is not included within this MAS.

Flood Risk Review Meeting. This meeting will serve to provide communities with engineering data and drafts of flood risk (non-regulatory) products, collect feedback, and revise as needed. It will also provide the opportunity to show how the datasets and outreach tools can help communities become more resilient by understanding risk data, communicating about risk, prioritizing mitigation actions and improving mitigation plans, especially risk assessments and mitigation strategies. Activities include planning, presenting, and facilitating discussions of data inputs and engineering models used for flood studies with community officials. In addition, draft work maps showing initial study results will be presented during the meeting.

For all meetings, provisions may be made for remote access video/audio feeds for those that cannot attend in person.

Status Reports

In addition to Risk MAP meetings, in order to facilitate information sharing and a continuing dialogue between the PMT and the community, the CTP will provide communities with regular status reports outlining the current project status, key accomplishments to date, identified risks, if any, and next steps including estimated next meeting date and meeting content (template to be provided from FEMA or can be created by Mapping Partner). These status reports will be provided to FEMA for review before electronic distribution. Project update status reports will be distributed to communities at mid-points between each of the meetings, and between the Final Meeting and effective date (if included in this MAS), to help introduce and prepare the communities for upcoming discussions.

Project Outreach and Communication Plan

The CTP will work with the Regional Office during the initiation of this activity to develop the Project Outreach and Communications Plan to support the implementation of the mapping project. The Regional Office will have access to many customizable outreach tools that have been developed for this process to support each touch point that the PMT has with the community.

Standards: All Community Engagement and Outreach work shall be performed in accordance with the standards specified in Section 5 - Standards. All communication with local governments will be done in accordance with 44 CFR Part 66.

Deliverables: The CTP shall deliver the following to the FEMA Regional Project Officer in accordance with the schedule outlined in Section 6 – Schedule and include within the TSDN:

- Project Communication Plan detailing outreach and coordination activities;
- Logs of Pre-Call Screenings (if applicable);
- Meeting invitation, agenda, presentation slides (as requested), and meeting notes for FEMA review;
- Action Identification and Advancement Plan; and
- Project update status reports for project communities

Develop Non-Regulatory Products

Responsible Mapping Partner: Miami-Dade County

Scope: Risk assessment data and analyses are defined as processes for analyzing or evaluating the risk associated with a hazard, and using that information to make informed decisions on the appropriate ways to reduce the impacts of the hazard on people and property. As part of the Risk MAP Program, non-regulatory Flood Risk Products shall be developed for study areas.

Flood Risk Products: The CTP will develop the following standard non-regulatory products for the watersheds, as identified in Table 1.4:

- Flood Risk Database - The Flood Risk Database will enable the creation of other products including the Flood Risk Map and Flood Risk Report. The CTP must deliver Flood Risk Datasets that are compliant with the Flood Risk Database Technical Reference;
- Flood Risk Report - The Flood Risk Map activity includes developing exhibits that depict non-regulatory flood risk dataset and base mapping information. This is a standard non-regulatory product; and
- Flood Risk Map - The Flood Risk Report activity includes documenting and delivering local communities a summary of their watershed and local flood risk information along with best practices for risk reduction. This is a standard non-regulatory product.

Flood Risk Datasets: The CTP will also develop the following Flood Risk Datasets, as identified in Table 1.4:

- Changes Since Last FIRM dataset - This activity includes the creation of the Changes Since Last FIRM dataset for areas receiving updated flood study information. This standard dataset is to be included and delivered within the Flood Risk Database product;
- Depth & Analysis Grids dataset - This activity includes the creation of Depth and Analysis Grids for areas receiving updated flood study information. The standard dataset which must be included for this activity is the 1% Annual Chance Flood Depth Grid. Creation and delivery of enhanced datasets should be negotiated with the Regional Office;
- Flood Risk Assessment dataset - This activity includes the delivery of Average Annualized Loss (AAL) for areas within the watershed or project area. This standard dataset is to be included and delivered within the Flood Risk Database product. Additionally, it includes the creation and delivery of the Refined Flood Risk Assessment for areas receiving updated flood study information (also a standard dataset). It may also include creation and delivery of a Composite Flood Risk Assessment or a User-Defined Analysis for areas receiving updated flood study information. The Composite and User-Defined datasets are enhanced datasets; creation and delivery of enhanced datasets should be negotiated with the Regional Office; and
- Areas of Mitigation Interest (AOMI) - This activity includes the creation of the Areas of Mitigation Interest for areas receiving updated flood study information. This standard dataset is to be included and delivered within the Flood Risk Database product

Flood Risk Assessment Datasets shall be incorporated into the standard Flood Risk Products.

Table 1.4 – Risk Assessment Product Development Table

Watershed(s) and/or Project Areas	Flood Risk Products	Flood Risk Datasets				
		CSLF	Depth & Analysis Grids	Flood Risk Assessment	AOMI	Other (add description)
Snake Creek (C-9) 030902061401	X	X	X	X	X	
Snake Creek/Royal Glades Canal (C-9) 030902061402	X	X	X	X	X	
Biscayne Canal (C-8) 030902061403	X	X	X	X	X	

Standards: All Risk MAP work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: The following products, for those communities identified in Table 1.1, will be made available to FEMA (CD/DVD, external hard drive, FTP, or uploaded to the MIP, as determined by the region):

32

- Flood Risk Report, Map, and Database;
- Changes Since Last FIRM dataset
- Depth and Analysis Grids dataset, including:
 - 1% Annual Chance Flood Depth Grid (standard; required)
 - Water Surface Elevation Grids (enhanced; optional per negotiation with the Regional Office)
 - Multi-frequency Flood Depth Grids (enhanced; optional per negotiation with the Regional Office)
 - Water Surface Elevation Change Analysis Grid (enhanced; optional per negotiation with the Regional Office)
 - Percent 30-yr Chance Analysis Grid (enhanced; optional per negotiation with the Regional Office)
 - Percent Annual Chance Analysis Grid (enhanced; optional per negotiation with the Regional Office)
- Flood Risk Assessment dataset , including
- Areas of Mitigation Interest dataset (standard; required)
- Maps and GIS layer with the composite total 1-percent annual chance (100-year) loss per census block
- Customized maps and GIS layers with the total 1-percent annual chance (100-year) loss per community.

Independent QA/QC of Non-Regulatory Products(optional)

Responsible Mapping Partner: FEMA (or contractor if Region would like)

Scope: Independent QC review activities may be performed by the {CTP, PTS, OFA} or FEMA's contractor at the discretion of FEMA. If the {CTP, PTS, OFA} will be utilizing its {staff/contractor/partners} to do the QC review, this should be identified during project planning and discovery. Note that FEMA will be performing independent QC of the Flood Hazard Assessment for Region IV. The {CTP, PTS, OFA} will be responsible for addressing any and all comments resulting from independent QC, including re-submittal of deliverables as needed to pass technical review. If updated census data, building data, etc. is available, it will be used in place of the out of the box HAZUS data.

Standards: All Risk MAP work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: {Insert name of responsible Mapping Partner} shall contact the region / RSC lead to obtain the guidance document Risk MAP Products in the MIP which explains how Non-Regulatory Products shall be submitted through the MIP. The guidance also explains how performance will be tracked for Non-Regulatory Products.

Deliverables should be submitted through to the regional office with coordination of the Regional Service Center (RSC). {insert name of responsible Mapping Partner} is responsible for confirming and/or obtaining any revised or updated guidance from the region or RSC lead.

Data from flood hazard assessment will be submitted 60 days prior to release of this data to the general public. Data to be submitted to the FEMA Region IV office for this review includes:

- Narrative of assumptions made and approaches taken for analysis;
- HPR files;
- Global summary report;
- Direct damage and contents data used to populate tables in risk report;
- Updated local parcel/building information, topographic data, etc. used in analysis; and
- Description of what data was used that was not part of the default HAZUS data sets

Develop Topographic Data

Responsible Mapping Partner: Miami-Dade County

Scope: Topographic/elevation data may be new or existing. New is defined as data that will be flown and processed for the areas specified in this MAS study areas according to the referenced specifications. Existing topographic/elevation data (previously flown and/or processed) may be used to produce flood studies and related products. However, if new data is not to be collected, the FEMA Region should be consulted before leveraging the best available existing topographic to ensure acceptability for the intended level of flood hazard study.

The CTP shall obtain additional topographic data for the floodplain areas to be studied including overbank areas. These data will be used for the updated hydrologic analysis, hydraulic analysis, floodplain boundary delineation and/or testing of floodplain boundary standard compliance. The CTP shall gather availability, currency, and accuracy information for existing topographic data covering the affected communities in this MAS. The CTP shall use topographic data for work in this MAS only if it is better quality than that of the original study or effective studies. The Mapping Partner will ensure that the FEMA Geospatial Data Coordination Policy and Implementation Guide is followed and the data obtained

Requirements for leveraging existing Topographic Data: The CTP shall use topographic data for the areas described in the Table 1.5 Summary of Topographic Data table. The source of the topographic data must be listed as well. The CTP shall coordinate with other team members conducting field surveys as part of this MAS. Accuracy for the topographic data shall be evaluated based on the current FEMA requirements for flood hazard study level of detail.

The CTP also shall update the topographic maps and/or DEMs for the subject flooding sources using the data collected under this Topographic Data Development process and via field surveys. In addition, the CTP shall address all concerns or questions regarding the topographic data development that are raised during the independent QC review, or during the National Quality Validation Process (formerly defined in Procedure Memorandum 42).

Table 1.5 – Summary of Topographic Data

Watershed/ Flooding Source	Beginning and End Points of Topo Data Collection	New/Existin g OR Leveraged	Accuracy & Year Acquired	Source/ Data Vendor	Contact Information	Use Restrictions
Snake Creek (C-9) 030902061401		Existing	.6-foot vertical & 3.8 feet horizontal published in 12/12/2007	Public domain		Planning Purposes
Snake Creek (C-9) 030902061402		Existing	.6-foot vertical & 3.8 feet horizontal published in 12/12/2007	Public domain		Planning Purposes
Biscayne Canal (C-8) 030902061403		Existing	.6-foot vertical & 3.8 feet horizontal published in 12/12/2007	Public Domain		Planning Purposes
Snake Creek (C-9) 030902061401		New	2015	Miami-Dade County	Mairim Avila	Planning Purposes
Snake Creek (C-9) 030902061402		New	2015	Miami-Dade County	Mairim Avila	Planning Purposes
Biscayne Canal (C-8) 030902061403		New	2015	Miami-Dade County	Mairim Avila	Planning Purposes

Standards: All Topographic Data Development work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: The CTP shall make the following products available to FEMA by uploading the digital data to the MIP in accordance with the schedule outlined in Section 6 – Schedule:

- Report summarizing methodology and results;
- Mass points and breaklines data;

35

- Gridded digital elevation model data;
- TIN data;
- Checkpoint analyses to assess the accuracy of data, including Root Mean Square Error calculations to support vertical accuracy;
- Identification of data voids and methods used to supplement data voids;
- National Geodetic Survey data sheets for Network Control Points used to control remote-sensing and ground surveys;
- Other supporting files consistent with the DCS (see draft DCS language and coordinate with the region regarding its appropriate use);
- Summary Report that describes and provides the results of all automated or manual QA/QC review steps taken during the preparation of the FIRM as outlined in the approved QA/QC Plan;
- Narrative describing the scope of work, direction from FEMA, issues, information for next mapping partner, etc.;
- Metadata file complying with the NFIP Metadata Profiles Specifications;
- Support documentation and Certification of Work;
- TSDN, where appropriate;
- Where paper documentation is required by state law for professional certifications, the CTP may submit the paper in addition to a scanned version of the paper for the digital record. Coordinate with the regional and/or state representative to verify state reporting requirements; and
- Updates to the National Digital Elevation Program (NDEP) project tracking at www.ndep.gov/.

Perform Independent QA/QC: Topographic Data

Responsible Mapping Partner: Miami-Dade County

Scope: The Independent QA/QC Mapping Partner shall perform an impartial review of the mapping data defined in Table 1.5 under Develop Topographic Data to ensure that these data are consistent with FEMA standards and standard engineering practice, and are sufficient to prepare the FIRM. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer.

Note that FEMA will also be performing periodic audits and overall study/project management to ensure study quality. The CTP will be responsible for addressing any and all comments resulting from independent QC, including re-submittal of deliverables as needed to pass technical review.

Standards: All Topographic Data Development work shall be reviewed in accordance with the standards specified in Section 5 – Standards.

Deliverables: The responsible Mapping Partner(s) shall make the following products available to FEMA by uploading the digital data to the MIP, in accordance with the schedule outlined in Section 6 – Standards:

- Summary Report that describes the findings of the independent QA/QC review;
- Confirmation of update(s) made to the NDEP;
- Recommendations to resolve any problems that are identified during the independent QA/QC review; and
- TSDN, where appropriate.

Prepare Basemap

Responsible Mapping Partner: Miami-Dade County

Scope: Basemap Preparation activities consist of obtaining and formatting the digital basemap (raster or vector) for the project. Activities also include the review of the basemap and obtaining the necessary documentation/verification that basemap data source(s) may be used and distributed by FEMA. This task is equivalent to the Acquire Base Map task in the MIP. The CTP shall prepare and provide the digital base map, including:

- Obtain digital files (raster or vector) of the base map. In coordination with the partner who performed Project Discovery, ensure that the FEMA Geospatial Data Coordination Policy and Implementation Guide are followed;
- Secure necessary permissions from the basemap source to allow FEMA's use and distribution of hardcopy and digital map products using the digital base map, free of charge;
- Review and supplement the content of the acquired base map to comply with FEMA standards;
- For the base map components that have a mandatory data structure, convert the base map data to the format required in FEMA standards; and
- Certify that the digital data meets the minimum standards and specifications that FEMA requires for FIRM production

In addition, the CTP shall address all concerns or questions regarding the basemap that are raised during the Independent QC review, or during the MIP Validate Content Submission Process. Table 1.6 is useful if multiple counties are involved with this map update. Any additional basemap information that is discovered after the MAS has been completed shall be recorded in a supplemental report delivered to the region.

Table 1.6 – Summary of Planned Basemap

Data	New / Existing	Leveraged	Study Area	Accuracy and Year Acquired	Source/ Data Vendor	Contact Information	Use Restrictions
Orthophotos/ Aerial Photographs	Existing	Yes	Countywide	2015	Miami-Dade County/ ACA		No restrictions
Hydrography	Existing	Yes	Countywide	2015	Miami-Dade County/ SFWMD		No restrictions
PLSS (Public Land Survey System)	Existing	No	Countywide	Latest	USGS		No restrictions
Corporate Boundaries	Existing	No	Countywide	2015	Miami-Dade County		No restrictions
Transportation Features	Existing	No	Countywide	2015	FDOT		No restrictions
High Water Marks	Existing	No	Countywide	2015	SFWMD		No restrictions
Benchmarks	Existing	Yes	Countywide	2015	Miami-Dade County/ NGS-NOAA		No restrictions
Miami-Dade County GIS Layers and Base Map	Existing	Yes	Countywide	2015	Miami-Dade County		No restrictions

Standards: All Basemap Preparation work shall be performed in accordance with the standards specified in Section 5 – Standards. The Data Capture Standard must be met for this deliverable to be acceptable.

Deliverables: The CTP shall make the following products available to FEMA by uploading the digital data to the MIP in accordance with the schedule outlined in Section 6 – Schedule.

- Metadata file complying with the NFIP Metadata Profiles Specifications;
- Digital basemap files that comply with FEMA Standards;
- Written certification that the digital data meet the minimum standards and specifications;
- Digital versions of draft text for inclusion in the FIS report;
- Documentation that FEMA can use the digital base map;
- Documentation of the Horizontal and Vertical Datums;

- Additional basemap acquisition correspondence; and
- Updates to the National Digital Orthophoto Program (NDOP) project tracking at <http://www.ndop.gov/> (This is required for new data collection only.)

Perform Independent QA/QC: Basemap

Responsible Mapping Partner: Miami-Dade County & SFWMD

Scope: The Independent QA/QC Mapping Partner shall perform an impartial review of the basemap obtained and prepared by the CTP to ensure it includes data consistent with FEMA standards and sufficient to include on the FIRM. Any needed edits should be made to the product to comply with FEMA standards.

Note that FEMA will also be performing periodic audits and overall study/project management to ensure study quality. The CTP will be responsible for addressing any and all reasonable comments resulting from independent QC of the basemap, including re-submittal of deliverables as needed to pass technical review.

Standards: All Independent QA/QC work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: The responsible Mapping Partner(s) shall make the following products available to FEMA by uploading the digital data to the MIP, in accordance with the schedule outlined in Section 6 – Schedule.

- Summary Report that describes the findings of the independent QA/QC review;
- Confirmation that the data was submitted under the applicable HUC-8 folders;
- Confirmation that updates were made to NDOP, if appropriate;
- Recommendations to resolve any problems that are identified during the independent QA/QC review; and
- If the data is changed during review, then updated deliverables from previous tasks will be submitted at this time.

Develop Hydrologic Data

Responsible Mapping Partner: Miami-Dade County

Scope: The CTP shall perform hydrologic analyses for the flooding source(s) identified in Table 1.7. The CTP shall calculate peak flood discharges for the 10%, 4%, 2%, 1%, “1% plus” and 0.2% annual chance events using the computer program listed in Table 1.7. These flood discharges will be the basis for subsequent Hydraulic Analyses performed under this MAS. In addition, the CTP shall address all concerns or questions regarding the hydrologic analyses that are raised during the independent QA/QC review performed.

The CTP will compare the calculated, or computed, discharge with discharge determined from reliable gage data, if any. This comparison will only be done at locations where the two discharge values are

considered representative of the same flooding source. Results of this comparison will be used in making a professional judgment for determining the discharge to be used for the hydraulic analysis.

Table 1.7 – Summary of Hydrologic Analysis

Study Area/Flooding Source	Method	Square Miles of New Hydrology
Snake Creek (C-9)	XP-SWMM/ Detailed Hydrology Analysis (Runoff)	17.0
Royal Glades Canal (C-9)	XP-SWMM/ Detailed Hydrology Analysis (Runoff)	23.4
Biscayne Canal (C-8)	XP-SWMM/ Detailed Hydrology Analysis (Runoff)	28.8

Standards: All Hydrologic Analyses work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: The CTP shall make the following products available to FEMA by uploading the digital data to the MIP in accordance with the schedule outlined in Section 6 - Schedule.

- Digital copies of all hydrologic modeling (input and output) files for the 10%, 4%, 2%, 1%, “1% plus” and 0.2% annual chance events;
- Metadata file;
- Digital Summary of Discharges Tables presenting discharge data for the flooding sources for which hydrologic analyses were performed (for flooding sources studied by detailed methods);
- Digital versions of draft text for inclusion in the FIS report;
- Digital versions of all backup data used in the analysis including work maps;
- Format Hydrology Database or Data Delivery consistent with the DCS and FEMA standards for all return periods (see draft DCS language and coordinate with the region regarding its appropriate use);
- Summary Report that describes and provides the results of all automated or manual QA/QC review steps taken during the preparation of the FIRM as outlined in the approved QA/QC Plan;
- Digital record: Note: where paper documentation is required by state law for professional certifications, the CTP may submit the paper in addition to a scanned version of the paper for the digital record. Coordinate with the regional and/or state representative to verify state reporting requirements; and
- Summary of the hydrologic analysis for each study area in Table 1.7 Summary of Hydrologic Analysis

Perform Independent QA/QC: Hydrologic Data

Responsible Mapping Partner: Miami-Dade County

Scope: The Independent QA/QC Mapping Partner shall perform an impartial review of the technical, scientific, and other information submitted by the CTP specific to the hydrologic analyses to ensure that the data and modeling are consistent with FEMA standards and standard engineering practice, and are sufficient to prepare the FIRM. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer. This work shall include, at a minimum, the activities listed below.

Note that FEMA will also be performing periodic audits and overall study/project management to ensure study quality. The CTP will be responsible for addressing any and all comments resulting from independent QC, including re-submittal of deliverables as needed to pass technical review.

- Review the submittal for technical and regulatory adequacy, completeness of required information, and supporting data and documentation. The technical review is to focus on the following:
 - Use of acceptable models;
 - Use of appropriate methodologies
 - Correctly applied methodology model (XP-SWMM), including QC of input parameters;
 - Comparison with gage data and/or regression equations, if appropriate; and
 - Comparison with discharges for contiguous reaches or flooding sources throughout the watershed.
- Verify that the data was submitted under the applicable HUC-8 folders; and
- Maintain records of all contacts, reviews, recommendations, and actions and make the data readily available to FEMA.

Note: If data changed during review, then updated deliverables for previous tasks will be submitted at this time

Standards: All Independent QA/QC work shall be performed in accordance with the standards specified in Section 5 – Standards.

Deliverables: Miami-Dade County shall make the following products available to FEMA by uploading the digital data to the MIP. Additionally, the TSDN must be delivered in accordance with Section 2 – Technical and Administrative Support Data Submittal.

This submittal will occur in accordance with the schedule outlined in Section 6 - Schedule.

- Summary Report that describes the findings of the independent QA/QC review; and
- Recommendations to resolve any problems that are identified during the independent QA/QC review.

Note: Where paper documentation is required by state law for professional certifications, the CTP may submit the paper in addition to a scanned version of the paper for the digital record. Coordinate with the regional and/or state representative to verify state reporting requirements.

Develop Hydraulic Data

Responsible Mapping Partner: Miami-Dade County

Scope: The CTP shall perform hydraulic analyses as described in Table 1.8. The modeling will include the 10%, 4%, 2%, 1%, "1% plus" and 0.2% annual chance events based on peak discharges computed under Hydrologic Analyses. The hydraulic methods used for this analysis will only include detailed level hydraulic modeling.

The detailed level will include field surveys, floodways, and the 10%, 4%, 2%, 1%, 1% plus and 0.2% annual chance events, using methods described in Table 1.8.

Miami-Dade County shall use the cross-section and field data collected during Field Survey and the topographic data collected during the Topographic Data Collection, when appropriate, to perform the hydraulic analyses. The hydraulic analyses will be used to establish flood elevations and regulatory floodways for the subject flooding sources.

The calibrated and verified existing condition model will be used to simulate the performance characteristics of the existing network of canals, wetland sloughs, etc., and to identify the hydraulic constraints or deficiencies. The existing condition model will be run for the selected design storm event criteria (5yr/24hr, 10yr/24hr, 25yr/24hr, 50yr/24hr, 100yr/24hr and 500yr/24hr). The hietograph interval will be consistent with the calibration process, but should not be less than 15 minutes.

The CTP shall use the Diagnostics tools of XP-SWMM, checking program to verify the reasonableness of the hydraulic analyses and continuity error. The Continuity error should not exceed 5% of the total volume of flow. The CTP shall provide explanation of all unresolved warning messages presented in the output files. In addition, the CTP shall address all concerns or questions regarding the hydraulic analyses that are raised during the independent QA/QC review.

Any flooding sources associated with a levee that are mapped as providing protection on effective FIRMs, but will not meet certification requirements for the new FIRMs, will require revised hydraulic analysis. This revised analysis should be done in accordance with FEMA standards and guidance as appropriate.

Table 1.8 – Summary of Hydraulic Data

Study Area/Flooding Source	Method	Total Miles of New Base level or Detailed Level Hydraulics
Snake Creek (C-9)	XP-SWMM/ Detailed Hydraulic Analysis (EXTRAN)	17.0
Royal Glades Canal (C-9)	XP-SWMM/ Detailed Hydraulic Analysis (EXTRAN)	23.4
Biscayne Canal (C-8)	XP-SWMM/ Detailed Hydraulic Analysis (EXTRAN)	28.8

Standards: All Hydraulic Data work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: The CTP shall make the following products available to FEMA by uploading the digital data to the MIP review in accordance with the schedule outlined in Section 6 - Schedule.

- Digital profiles of the 10%, 4%, 2%, 1%, "1% plus" and 0.2% annual chance events, representing existing conditions using the FEMA RASPLOT program or similar software (for flooding sources studied by detailed methods);
- Metadata file;
- Digital Floodway Data Tables for each flooding source studied by detailed methods that is compatible with the FIRM database;
- Digital hydraulic modelling (input and output) files;
- Digital tables with range of Manning's "n" values;
- Explanations for unresolved messages from the XP-SWMM, as appropriate;
- Digital versions of all backup data used in the analyses;
- Digital versions of draft text for inclusion in the FIS report;
- Format Hydraulic Database or Data Delivery consistent with the DCS and FEMA standards (see draft DCS language and coordinate with the region regarding its appropriate use);
- Summary Report that describes and provides the results of all automated or manual QA/QC review steps taken during the preparation of the FIRM as outlined in the approved QA/QC Plan;
- Depth grids for all studied streams for all frequencies as required; and
- Appropriate leverage information, including who paid for the data and the amount of data used by the Flood Risk Project.

Note: Where paper documentation is required by state law for professional certifications, you shall submit the paper in addition to a scanned version of the paper for the digital record. Coordinate with the regional and/or state representative to verify reporting requirements for your state.

Perform Independent QA/QC: Hydraulic Data

Responsible Mapping Partner: Miami-Dade County

Scope: The Independent QA/QC Mapping Partner shall perform an impartial review of the technical, scientific, and other information submitted by the CTP under Hydraulic Analysis to ensure that the data and modeling are consistent with FEMA standards and standard engineering practice, and are sufficient to revise the FIRM. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer. This work shall include, at a minimum, the activities listed below.

Note that FEMA will also be performing periodic audits and overall study/project management to ensure study quality. The CTP will be responsible for addressing any and all comments resulting from independent QC, including re-submittal of deliverables as needed to pass technical review.

Review the submittal for technical and regulatory adequacy, completeness of required information, and supporting data and documentation. The technical review is to focus on the following:

- Use of acceptable model(s);
- Starting water-surface elevations;
- Cross-section geometry;

- Manning's "n" values and expansion/contraction coefficients;
 - Bridge and culvert modeling;
 - Flood discharges;
 - Regulatory floodway computation methods;
 - Tie-in to upstream and downstream Flood Profiles; and
 - Depth grids
- Verify that the data was submitted under the applicable HUC-8 folders;
 - Use the diagnostic tools of XP-SWMM program, as appropriate, to flag potential problems and focus review efforts;
 - Maintain records of all contacts, reviews, recommendations, and actions and make the data readily available to FEMA;
 - Maintain an archive of all data submitted for hydraulic modeling review. (All supporting data must be retained for three years from the date a funding recipient submits its final expenditure report to FEMA, and once the study is effective all associated data should be submitted to the FEMA library); and
 - If data changed during review, then updated deliverables for previous tasks will be submitted at this time.

Standards: All Independent QA/QC work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: The responsible Mapping Partner(s) shall make the following products available to FEMA by uploading the digital data to the MIP, in accordance with the schedule outlined in Section 6 -- Schedule.

- Summary Report that describes the findings of the independent QA/QC review; and
- Recommendations to resolve any problems that are identified during the independent QA/QC review.

Note: If the data changed during the Hydrologic and/or Hydraulic Analyses QA/QC process, then the updated and verified deliverables from these activities will be resubmitted at this time.

Perform Floodplain Mapping

Responsible Mapping Partner: Miami-Dade County

Scope for Base Level Study: The CTP shall delineate the 1% and 0.2% annual chance floodplain boundaries and any other applicable elements for the flooding sources for which hydrologic, detailed hydraulic, and/or coastal analyses were performed. The CTP shall incorporate all new or revised hydrologic, hydraulic, and/or coastal modeling and shall use the topographic data acquired under Develop Topographic Data to delineate the floodplain and regulatory floodway boundaries on a digital work map.

Scope for Detailed Riverine: The CTP shall delineate the 1% and 0.2% annual chance floodplain boundaries and the regulatory floodway boundaries (if required) and any other applicable elements for the flooding sources for which hydrologic, detailed hydraulic, and/or coastal analyses were performed, resulting in a map showing including Base Flood Elevations for the 1% chance annual flood and the maximum water surface elevation for the 0.2 % floodplains.

Scope for Refinement or Creation of Zone A: The CTP shall delineate the 1% and 0.2% annual chance floodplain boundaries for the flooding sources in the Scoping Report. The CTP shall use existing topographic data or the topographic data acquired under Develop Topographic Data to delineate the floodplain boundaries on a digital work map. All Zone A boundaries must be supported with a model.

Letters of Map Change (LOMC): The CTP shall incorporate the results of all effective Letters of Map Change (LOMCs) for all affected communities on the FIRM and provide to the appropriate PTS the required submittals for incorporation into the National Flood Hazard Layer (NFHL). Also, the CTP shall address all concerns or questions regarding Floodplain Mapping that are raised during the independent QA/QC review.

Flood Engineering or Mapping Data: The CTP shall capture flood hazard engineering and/or mapping data quality issues encountered during this activity in the CNMS data model for the area of interest. These issues will be entered as "Requests" or "Needs" in the CNMS data model based on the nature of the deficiency encountered. Detailed information on performing this task can be found in the relevant standards specified in Section 5 - Standards.

FIRM Data: The CTP will provide the data to FEMA, at the time of FIRM data submission, to update the Mid-Term Levee Inventory (MLI). Since there are no Provisionally Accredited Levees (Pals) in the proposed study area, the submittal will not include any detailed PAL data.

Standards: All floodplain mapping work shall be performed in accordance with the standards specified in Section 5 – Standards. The CTP will perform self-certification audits for the Floodplain Boundary Standards for all flood hazard areas.

Deliverables: Upon completion of floodplain mapping for all flooding sources in this project, the CTP shall make the following products available to FEMA by uploading the digital data to the MIP in accordance with the schedule outlined in Section 6 – Schedule.

- Metadata file complying with the NFIP Metadata Profiles Specifications, must accompany the compliant digital data;
- Support documentation and Certification of Work;
- Digital work map showing the Special Flood Hazard Area, 1% and 0.2% annual chance floodplain boundary delineations, regulatory floodway boundary delineations, cross sections, BFEs, flood insurance risk zone designation labels, gutters, PFD, and all applicable base map features;
- Draft FIRM database prepared in accordance with FEMA standards;
- Digital versions of input and output for any computer programs that were used consistent with the DCS (see draft language and coordinate with the Region regarding its appropriate usage);
- A Summary Report that describes and provides the results of all automated or manual QA/QC review steps taken during the preparation of the FIRM as outlined in the approved QA/QC Plan;
- Any backup or supplemental information including supporting calculations and assumptions used in the mapping required for the independent QA/QC review of Hydrologic, Coastal and /or Hydraulic Analyses and Floodplain Mapping consistent with the DCS (see draft language and coordinate with the region regarding its appropriate usage);
- Explanation for the use of existing topography for the studied reaches, if appropriate;

- Written summary of the analysis methodologies;
- Digital versions of draft FIS report, Floodway Data Tables and updated profiles including all profiles and tables converted to the appropriate datum, as well as any other necessary items for the finalization of the preliminary FIS; and

Note: Where paper documentation is required by state law for professional certifications, the CTP may submit the paper in addition to a scanned version of the paper for the digital record. Coordinate with the regional and/or state representative to verify state reporting requirements.

Perform Independent QA/QC: Floodplain Mapping

Responsible Mapping Partner: Miami-Dade County

Scope: The Independent QA/QC Mapping Partner shall perform impartial review of the floodplain mapping submitted by the CTP under Floodplain Mapping to ensure that the results of the analyses performed are accurately represented, the Redelineation of existing data on new, updated topography is appropriate, and to ensure that the new FIRM panels accurately represent the information shown on the effective FIRMs and FBFMs for the unrevised areas that are mapped. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer. This work shall include, at a minimum, the activities listed below.

Note FEMA will also be performing periodic audits and overall study/project management to ensure study quality. The CTP will be responsible for addressing any and all comments resulting from independent QC, including re-submittal of deliverables as needed to pass technical review.

- Review the cross sections for proper location and orientation on the work map and agreement with the Floodway Data Table and Flood Profiles;
- Review the BFEs and coastal flood zones (both Zones VE and Zones AE) shown on the work map for proper location and agreement with the results of the coastal modeling;
- Review the regulatory floodway widths for agreement with the widths shown in the Floodway Data Table and the results of the hydraulic modeling;
- For non-revised floodplain areas, the 1% and 0.2% annual chance floodplain boundaries agree with the floodplain boundaries shown on the FIRM, the contour lines, other topographic information, and planimetric information shown on the FIRM base;
- Provide road and floodplain relationships are maintained for all unrevised areas;
- Review the flood insurance risk zones as shown on the work maps to ensure the data are labeled properly;
- Review the FIRM mapping files to ensure the data were prepared in accordance with FEMA standards;
- Review the metadata files to ensure the data includes all required information shown in the NFIP Metadata Profiles Specifications;
- Review that effective Letters of Map Change (LOMCs) for all affected communities on the FIRM were accounted for; and
- Verify that the data was submitted under the applicable HUC-8 folders.

Standards: All Independent QA/QC work shall be performed in accordance with the standards specified in Section 5 – Standards.

Deliverables: The responsible Mapping Partner(s) shall make the following products available to FEMA by uploading the digital data to MIP, in accordance with the schedule outlined in Section 6 – Schedule.

- Summary Report that describes the findings of the QA/QC review, noting any deficiencies in or agreeing with the mapping results;
- Recommendations to resolve any problems that are identified during the independent QA/QC review; and
- An annotated work map with all questions and/or concerns indicated, if necessary.

Note: If data changed during review, then updated deliverables for previous tasks will be submitted at this time.

Develop FIRM Database

Responsible Mapping Partner: Miami-Dade County

Scope: The CTP shall prepare the database in accordance FEMA standards and guidance, including all relevant Technical Reference documents, for upload to the MIP. The CTP is responsible for confirming and/or obtaining any revised or updated guidance from the region. The CTP shall coordinate with appropriate Mapping Partners, as necessary, to resolve any problems that are identified during development of the FIRM Database.

Standards: All FIRM Database work shall be performed in accordance with the standards specified in Section 5 - Standards. In addition, the appropriate QR activity shall be performed.

Deliverables: The CTP shall make the following products available to FEMA by uploading the digital data to the MIP:

- FIRM database files, prepared in accordance with FEMA standards and in the required format(s); and
- Metadata file complying with the FEMA NFIP Metadata Profile Specifications.

SECTION 2—Technical and Administrative Support Data Submittal

The Project Team members for this Flood Risk Project that have responsibilities for activities included in this MAS shall comply with the data submittal requirements summarized below and in appropriate Procedure Memorandums.

All supporting documentation for the activities in this MAS shall be submitted according to FEMA standards and requirements, and will include a flood elevation determination docket (FEDD) folder. Table 2.1 *Mapping Activities and Applicable TSDN Sections* indicates the sections of the TSDN that apply to each mapping activity. Submittals must be made to the appropriate PTS for a review of required

materials. The CTP will respond to requests from FEMA or its contractors for additional information and ensure that all required documents are included in the TSDN.

If any issues arise that could affect the completion of an activity within the proposed scope or budget, the CTP shall complete and submit to FEMA a Special Problem Report (SPR) as soon as possible after the issue is identified. The SPR describes the issue and proposes possible resolutions. For additional information on SPRs, consult the Regional Office.

Information supporting FEMA standards and requirements regarding the TSDN and FEDD file may be found in Procedure Memorandum 62 *TSDN and FEDD File Protocol for Mapping Projects*.

Table 2.1 – Mapping Activities and Applicable TSDN Sections

Mapping Activities	TSDN Section												
	SECTION 10001	SECTION 10002	SECTION 10003	SECTION 10004	SECTION 10005	SECTION 10006	SECTION 10007	SECTION 10008	SECTION 10009	SECTION 10010	SECTION 10011	SECTION 10012	SECTION 10013
Continued													
Development Regional Spatial Data		X	X	X	X							X	X
Regional Independent OAV/C Hydrographic Data		X	X	X	X							X	X
Regional Base Map		X	X	X	X	X		X	X	X	X	X	X
Development Hydrology		X	X	X	X	X	X	X	X	X	X		X
Regional Independent OAV/C Hydrographic Data		X	X	X	X	X		X	X	X	X		X
Development Hydrographic Data		X	X	X	X	X	X	X	X	X	X		X
Regional Independent OAV/C Hydrographic Data		X	X	X	X	X		X	X	X	X		X

Mapping Activities	FSDN Section												
	1. Data Management	2. Data Analysis	3. Data Integration	4. Data Quality	5. Data Security	6. Data Access	7. Data Storage	8. Data Archiving	9. Data Backup	10. Data Recovery	11. Data Migration	12. Data Retention	13. Data Disposal
Regional Flood Plain Mapping		X	X	X	X	X		X	X	X		X	X
Regional Independent OFA/OCA Flood Plain Mapping		X	X	X	X	X		X	X	X		X	X
Develop FIRM Database		X	X	X	X							X	X
Develop Non-Regulatory Products		X	X	X	X							X	X
Develop Additional Information Maps/Products		X	X	X	X							X	X
Develop Additional Maps/Products		X	X	X	X							X	X

SECTION 3—PERIOD OF PERFORMANCE

The mapping activities outlined in this MAS will be completed as specified in the Cooperative Agreement Funding Opportunity Announcement, Award Notice and/or Articles of Agreement. The Mapping Activities may be terminated at the option of FEMA or the CTP in accordance with the provisions of the Partnership Agreement dated March 17, 2003. If these mapping activities are terminated, all products produced to date must be submitted and updated into the MIP (if applicable) and the remaining funds, provided by FEMA for this MAS, from uncompleted activities will be returned to FEMA.

SECTION 4—FUNDING/LEVERAGE (For CTP, OFA and/or Community)

FEMA is providing funding, in the amount of \$ 1,250,000 (one million two hundred fifty thousand dollars) through a Cooperative Agreement to Miami-Dade County for the completion of this Flood Risk Project. Miami-Dade County shall provide any additional resources required to complete the assigned activities for this Flood Risk Project as outlined in Table 4.1 Contribution and Leverage. During the discovery process, additional needs may be identified. Activities associated with any additional needs would be performed based on availability of additional funds. The leverage listed below includes in-kind services and blue book values for obtained existing information from the CTP or communities associated

with the project (i.e. base map data, hydrologic and hydraulic analyses, etc.). These values must also be reported in the MIP by the CTP during the appropriate task. The current Blue Book (3.0) is dated January 2011 and can be downloaded from FEMA's Information Resource Library at <http://www.fema.gov/library/viewRecord.do?id=2473>.

Optional: Table 4.1 – Contribution and Leverage

Project Task	FEMA Contribution	Partner Contribution	% Partner Leverage (of total project task cost)	Total Project Task Cost
Project Management	0	100,000	100%	\$100,000
Perform Community Engagement and Project Outreach	0	\$87,500	100%	\$87,500
Develop Topographic Data	\$50,000	0	100%	\$50,000
Independent QA: Topo	\$5,999	0	100%	\$5,999
Basemap Preparation	\$420,000	0	0	\$420,000
Independent QA: Basemap	\$63,000	0	0	\$63,000
Develop Hydrologic Data	\$248,004	\$256,650	51%	\$504,654
Independent QA: Hydrologic	\$25,665	0	0	\$25,665
Develop Hydraulic Data	\$89,320	\$552,305	100%	\$641,625
Independent QA: Hydraulic	\$51,330	0	0	\$51,330
Perform Floodplain Mapping	0	\$128,325	100%	\$128,325
Independent QA: Floodplain Mapping	\$17,110	0	0	\$17,110
Develop DFIRM Database	\$4,500	0	0	\$4,500
Develop Non-Regulatory Products and Datasets	\$275,072	0	0	\$275,072
Produce Preliminary Map Products	0	0	0	\$36,400
Independent QA: Preliminary Map	0	0	0	\$5,320
Post-Preliminary Processing	0	0	0	\$47,600
TOTAL FUNDING AMOUNTS	1,250,000	1,214,100	49%	\$2,464,100

50

Final leverage dollars or units will be entered, as applicable, within the Manage Data Development task in the MIP workflow. Leverage data shall be an estimate of available leverage data at the time the MAS is prepared and shall be further defined in the Discovery Report and throughout the project.

SECTION 5—STANDARDS

The standards relevant to this MAS are available in FEMA’s *Guidelines and Standards Policy Memo* located at www.fema.gov/media-library/assets/documents/35313. Additional information, along with links to Guidance, Technical References, Templates and other resources that support these standards, may be accessed and/or downloaded from the FEMA Flood Hazard Mapping website at www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping. The Geospatial Data Coordination Policy and the Geospatial Data Coordination Implementation Guide are located at hazards.fema.gov under “Tools & Links.”

FEMA is in the process of updating existing guidance. In the meantime, CTPs may refer to historical documents for assistance. Table 5.1 *Applicable Standards for Project Activities* and Table 5.2 *Project Activities and Applicable Portions of FEMA Guidelines and Specifications* are provided to assist the CTP in determining the relevant historic guidance for tasks available in this MAS. CTPs (and their contractors) working on a Flood Risk Project are responsible for complying with all appropriate requirements in FEMA’s standards and guidelines.

Additionally, CTPs and their sub-awardees must comply with FEMA’s Federal Regulation 44 CFR and the appropriate year CTP Funding Opportunity Announcement and Agreement Articles. CTPs shall also coordinate with their Regional office to determine additional standards that should be met.

Table 5.1 – Applicable Standards for Project Activities

Applicable Guidance	Activities																	
	Perform Discovery	Outreach	Perform Field Survey	Develop Topographic Data	Perform Independent QA/QC: Topographic Data	Acquire Base Map	Coastal Analysis	Perform Independent QA/QC: Coastal Analysis	Develop Hydrologic Data	Perform Independent QA/QC: Hydrologic Data	Develop Hydraulic Data	Perform Independent QA/QC: Hydraulic Data	Perform Floodplain Mapping (Incorporation)	Perform Independent QA/QC: Floodplain Mapping	Develop FIRM Database	Develop Non-Regulatory Products	Produce/Distribute Preliminary Map Products	Post-Preliminary Map Production
<i>Guidelines and Specifications for Flood Hazard Mapping Partners and Procedure Memorandums</i>	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FEMA’s Geospatial Data Coordination Policy	X			X		X												
FEMA’s Geospatial Data Coordination Implementation Guide	X			X		X												

51

Applicable Guidance	Activities																
	Perform Discovery Outreach	Perform Field Survey	Develop Topographic Data	Perform Independent O&G Hydrographic Data	Acquire Bathy Data	Coastal Analysis	Perform Independent O&G Coastal Analysis	Develop Hydrologic Data	Perform Independent O&G Hydrologic Data	Develop Hydraulic Data	Perform Independent O&G Hydraulic Data	Perform Floodplain Mapping (in Real-time)	Perform Independent O&G Floodplain Mapping	Develop RRV Database	Develop Non-Regulatory Products	Produce/Distribute Preliminary Map Products	Execute/Implement Map Production
Engineer Manual 1110-2-1003, <i>Hydrographic Surveys</i> (USACE), January 1, 2002	X		X														
"Numerical Models Accepted by FEMA for NFIP Usage", Updated April 2003	X						X	X	X	X	X	X					
NFIP Metadata Profile Specifications	X			X	X							X	X	X	X	X	X
<i>Document Control Procedures Manual</i>	X	X													X		X
<i>44 Code of Federal Regulations Parts 65, 66 and 67</i>	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Data Sharing Agreement</i>																	

Table 5.2 – Project Activities and Applicable Portions of FEMA Guidelines and Specifications

Activity Description	Applicable Volume, Section/Subsection, and Appendix
Perform Discovery	Volume 1
	Appendix I
	Discovery Report document
	OG 1-11: Risk MAP Guidance for Incorporating Mitigation Planning Technical Assistance and Training into Flood Risk Projects
	OG 2-11: Operating Guidance for Creation of Risk MAP Products
	OG 4-11: Risk Map Meetings Guidance
	PM 56, 59, 63

Activity Description	Applicable Volume, Section/Subsection, and Appendix
	CNMS User's Guide CNMS data model "NVUE: Calculation Guidance under Risk MAP" 44 Code of Federal Regulations Part 66 and 67
Outreach	Volume 1 Appendix I OG 4-11: Risk MAP Meetings Guidance
Develop Non-Regulatory Products	Appendices N and O (draft) September 2011 PM 59 and 65 OG 1-11: Risk MAP Guidance for Incorporating Mitigation Planning Technical Assistance and Training into Flood Risk Projects OG 2-11: Operating Guidance for Creation of Risk MAP Products OG 3-11: Communicating Flood Risk with Risk MAP Datasets and Products OG 6-11: User Guidance for Flood Risk Datasets and Products "Risk MAP Products in the MIP" (March 4, 2011)
Perform Field Survey	Volume 1 Appendices A, B, C, F, and M
Develop Topographic Data and Perform Independent QA/QC: Topographic Data	Volume 1, Appendices A and M PM 61
Acquire Base Map and Perform Independent QA/QC: Base Map	Volume 1 Appendices A, K, L, N and O
Develop Hydrologic Data and Perform Independent QA/QC: Hydrologic Data	Volume 1 Appendices A, C, E, F, G, H, and M

Activity Description	Applicable Volume, Section/Subsection, and Appendix
	PM 59
Develop Hydraulic Data and Perform Independent QA/QC: Hydraulic Data	Volume 1 Appendices A, B, C, E, F, G, H, and M PM 34, 43, 51, 52, 53, 59, 63
Perform Coastal Analysis Hazard Analyses and Perform Independent QA/QC: Coastal Analysis	Volume 1 Appendices A, B, C, D, H, and M Coastal Guidelines Updates" PM 47 OG 7-11: Application of TAW Run-up Methodology to FEMA Needs OG 8-11: Joint Probability – Optimal Sampling Method for Tropical Storm Surge Frequency Analysis
Perform Floodplain Mapping and Perform Independent QA/QC: Floodplain Mapping (including Redelineation/Digitization)	Volume 1 Appendices C, D, E, F, G, H, K, L, and M PM 51, 52, 53 and 56 CNMS User's Guide CNMS data model "NVUE: Calculation Guidance under Risk MAP"
Develop FIRM Database	Volume 1 Appendices K, L and M PM 42, 56
Produce Preliminary Map Products and Perform Independent QA/QC: Produce Preliminary Map Products	Volume 1 Appendices K, L, and M PM 50, 51 and 56 CNMS User's Guide CNMS data model "NVUE: Calculation Guidance under Risk MAP"

Activity Description	Applicable Volume, Section/Subsection, and Appendix
<p>Distribute Preliminary Map Products and Perform Independent QA/QC: Distribute Preliminary Map Products</p>	<p>Volume 1 Appendices J, K, L, and M PM 44, 56 and 57 CNMS User's Guide CNMS data model "NVUE: Calculation Guidance under Risk MAP"</p>
<p>Post-Preliminary Map Production</p>	<p>Volume 1 Appendices J, K, L, and M PM 42, 44, 56, 57, 62 CNMS User's Guide CNMS data model "NVUE: Calculation Guidance under Risk MAP"</p>

55

SECTION 6— SCHEDULE

The activities documented in this MAS shall be completed in accordance with Table 6.1 Project Activities Schedule, which should drive the schedule within the MIP. If changes to this schedule are required, the CTP shall coordinate with FEMA and the PMT in a timely manner.

Table 6.1 – Project Activities Schedule

ACTIVITIES	RESPONSIBLE PARTNER(S)	Estimated START DATE	Estimated END DATE
Project Management	Miami-Dade County	F.Y 2015-16	F.Y.2017-18
Perform Community Engagement and Project Outreach	Miami-Dade County	F.Y 2015-16	F.Y.2017-18
Develop Topographic Data	Miami-Dade County	Oct-15	Mar-16
Perform Independent QA/QC: Topographic Data	Miami-Dade County	Apr-16	Sep-16
Acquire Base Map	Miami-Dade County	Oct-15	Jan-16
Perform Independent QA/QC: Base Map	Miami-Dade County	Jan-16	Jun-16
Develop Hydrologic Data	Miami-Dade County	Oct-15	Mar-16
Perform Independent QA/QC: Hydrologic Data	Miami-Dade County	Mar-16	Jun-16
Develop Hydraulic Data	Miami-Dade County	Mar-16	Sep-16
Perform Independent QA/QC: Hydraulic Data	Miami-Dade County	Oct-16	Jan-17
Perform Floodplain Mapping: Detailed Riverine	Miami-Dade County	Oct-16	Mar-17
Perform Floodplain Mapping: Merging Revised and Unrevised Areas	Miami-Dade County	Mar-17	Aug-17
Perform Independent QA/QC: Floodplain Mapping	Miami-Dade County	Aug-17	Dec-17
Develop FIRM Database	Miami-Dade County	Dec-17	Jun-18
Develop Non-Regulatory Products	Miami-Dade County	Dec-17	Dec-18
Produce Preliminary Workmap, (including Graphical Specifications)	Miami-Dade County	Dec-18	Jun-19
Perform Independent QA/QC: Produce Preliminary Map Products	Miami-Dade County	Jun-19	Aug-19

The CTP will coordinate with FEMA, or its designee, to develop a baseline schedule for individual project activities. FEMA or its designee will utilize the individual project task

schedule create the Flood Risk Project in the MIP and baseline the project activities with schedule and cost information within 30 days of the funds being awarded and FEMA's approval of the final cost and schedule. The baseline schedule for individual project activities may be re-baselined in the MIP with approval from the FEMA Project Officer, and does not require a change to this MAS unless the overall project end date is modified.

SECTION 7—CERTIFICATIONS

Data Capture Standards

- **DCS Certification Form** The CTP will transfer all project information to FEMA according to the latest Data Capture Standards (DCS) Technical Reference Document. A community official responsible for the structure of the databases shall provide written certification that the digital data meet FEMA minimum standards and specifications.

Perform Field Surveys

- A Registered Professional Engineer or Licensed Land Surveyor shall provide an accuracy statement for field surveys and/or topographic data used and shall certify these data meet the accuracy statement provided. Data accuracy should be stated used the Federal Geographic Data Committee National Standards for Spatial Data Accuracy, but the American Society for Photogrammetry and Remote Sensing accuracy reporting standards are acceptable.

Prepare Basemap

- A community official or responsible party shall provide written certification that the digital data meet FEMA minimum standards and specifications;
- The CTP shall provide documentation that the digital base map can be used by FEMA and freely made available to the public. Note that uploading basemap data to the MIP does not constitute agreement that the digital basemap can be used by FEMA. Documentation that the digital basemap can be used by FEMA is still required; and
- Certifications are required at the time the intermediate or final data is submitted.

Develop Hydrologic Data, Develop Hydraulic Data, Perform Coastal Analysis, and Perform Floodplain Mapping

- A Registered Professional Engineer shall certify hydrologic and hydraulic and coastal analyses and data in accordance with 44 CFR 65.6(f);
- Any levee systems to be accredited will be certified by the levee owner or other appropriate entity in accordance with 44 CFR 65.10; and
- Certifications are required at the time the intermediate or final data is submitted.

SECTION 8—TECHNICAL ASSISTANCE AND RESOURCES

Project Team members may obtain copies of FEMA-issued LOMCs, archived engineering backup data, and data collected as part of the CNMS process from FEMA and/or your Regional Project Officer.

General technical and programmatic information can be downloaded from the FEMA website at www.fema.gov/plan/prevent/fhm/frm_soft.shfm. Specific technical and programmatic support may be provided through FEMA and/or its contractor; such assistance should be requested through the FEMA Project Officer specified in Section 12 – Points of Contact.

Project Team members also may consult with the FEMA Regional Project Officer to request support in the areas of selection of data sources, digital data accuracy standards, assessment of vertical data accuracy, data collection methods or subcontractors, and GIS-based engineering and modeling training.

Contact the region to obtain the most recent version of the Risk MAP Timeline.

Assistance with the MIP may be requested at miphelp@riskmapods.com

SECTION 9—CONTRACTORS

The CTP does not intend to use the services of a contractor for the Flood Risk Project documented in this MAS. No transfer of funds to agencies other than those identified in the approved cooperative agreement application shall be made without prior approval from FEMA. The CTP shall ensure that the procurement for all contractors, if any, are used for this Flood Risk Project complies with the requirements of 2 CFR 200.

Guidance provided in this part includes, but is not limited to, contract administration and record keeping, notification requirements, review procedures, competition, methods of procurement, and cost and pricing analysis. 2 CFR Part 200 may be downloaded in PDF or text format from the U.S. Government Printing Office web site at www.gpo.gov/fdsys/granule/CFR-2014-title2-vol1/CFR-2014-title2-vol1-part200/content-detail.html. Additionally, contractors must not pose a conflict of interest issue.

Part 13 may be downloaded in PDF or text format from the United States Government Printing Office website at www.access.gpo.gov/nara/cfr/waisidx_04/44cfr13_04.html.

SECTION 10—REPORTING

Financial Reporting: Because funding has been provided to the CTP by FEMA, financial reporting requirements for the CTP will be in accordance with the terms of the Cooperative Agreement Funding Opportunity Announcement, Articles of Agreement or Award Notice for this MAS. The CTP shall also refer to 2 CFR 200. The CTP shall provide financial reports to the FEMA Regional Project Officer and Assistance Officer in accordance with the terms of the signed Cooperative Agreement for this MAS.

Performance Reporting: Recipients are responsible for providing updated performance reports using the SF-PPR on a quarterly basis throughout the period of performance, including partial calendar quarters as well as for periods where no grant award activity occurs. The CTP shall refer to 2 CFR 200 to obtain minimum requirements for progress reporting. The Project Officer, as needed,

may request additional information on progress.

The CTP may meet with FEMA and/or its contractor(s) as frequently as needed to review the progress of the project in addition to the quarterly financial and status submittals. These meetings may alternate between FEMA's Regional Office, the Miami-Dade County office, and conference calls, as necessary.

The CTP must report performance of the grant in conjunction with the progress reporting. The performance of the CTP is measured by the following criteria. Quantitative Targets for performance measures will be defined between you and your FEMA Region and amended to the MAS when completed.

Measure	Target
Continued maintenance, through non-federal funds, of the processes or systems in place to support the collection, development, evaluation, dissemination and communication of flood hazard and risk assessment data and mapping (e.g., continued data collection related to changes in flood hazards and development in flood-prone areas; continued upgrades to data collection or mapping capabilities to incorporate new technologies; preparation of multiple-year mapping or data collection plans; maintenance of hardware, software, licenses and certifications, etc., necessary to complete, review, monitor and report on the work; etc.).	Identify the level of non-federal support you have provided via the previous quarter and show cumulative for the project
Management and commitment to existing, and continued support of, flood hazard identification and mapping activities and other program activities (such as risk assessments, risk communication and technical assistance for mitigation action) conducted with and by FEMA.	Identify what tasks from MAS complete and funds expended
Uniqueness and value of the national, State, regional or local relationships maintained, including ability to effectively cooperate and coordinate with NFIP stakeholders as well as other whole community stakeholders affected by program activities.	Provide a statement of some of the unique value that has been provided by this cooperative agreement.
Adherence to statutory and regulatory requirements as well as program standards for timeliness, completeness and quality of project activities and deliverables submitted to FEMA and/or provided to	Report on QR submittals and if there was delivery of any products to communities that had errors. If so, identify any corrective actions plans that you and the Region determined for said issue.

Measure	Target
<p>the public</p> <p>Demonstrated quality of product(s) submitted to FEMA and/or provided to the public.</p>	
<p>Advancement of program metrics and/or accomplishment of project performance measures</p>	<p>Report on SPI and CPI. Must be between 0.92 and 1.08. If it is not, provide information on what is being done to correct the problem</p>
<p>Ability to cooperate and coordinate with the staff of the following organizations during all phases of project activities as needed: the FEMA Regional Offices; the Federal Insurance and Mitigation Administration in the FEMA Headquarters Office in Washington, DC; and designated FEMA contractors.</p>	<p>Provide statement certifying that communication throughout the Risk MAP project has been completed in conjunction with the entities listed</p>

The CTP shall communicate with communities throughout the life of each project. Continued engagement is necessary and appropriate and will build upon the relationships established or enhanced during Discovery and provide transparency into the Risk MAP process. This may occur through monthly or quarterly updates or project status calls with community leaders, project websites including updates at several milestones or along a specific timeline, or other methods.

Earned Value Data Entry: Once the FEMA Regional Office has issued the MAS, the baseline for the project will be established in the MIP, using the cost and schedule information for each task as agreed upon by the FEMA Regional Office and the CTP. The Cost Performance Index (CPI) and the Schedule Performance Index (SPI) in the MIP must be used to monitor partner performance and to determine future funding eligibility. Recipients must adhere to the performance requirements by maintaining a 0.92 score for both CPI and SPI.

The CTP is required to report on the earned value of projects that are in the MIP on a monthly basis and must give explanations for variances outside of the tolerance defined above. FEMA Regional Offices must implement a Corrective Action Plan (CAP) when a CTP partner is outside of the tolerance. A CAP must define the reason for the variance and the intended resolution. FEMA Regional Offices must coordinate with FEMA Headquarters when CAPs are developed.

As Program Management tasks are not conducted in the MIP, cost and schedule performance measures must be defined and documented in the MAS or scope of work statement. These measures must be used to monitor partner performance and to determine future funding eligibility. This exception only applies to tasks not able to be conducted or tracked in the MIP.

SECTION 11—PROJECT COORDINATION

Throughout the project, all members of the Project Team will coordinate, as necessary, to ensure the products meet the technical and format specifications required and contain accurate, up-to-date information. Coordination activities may include:

- Meetings, teleconferences, and video conferences with FEMA and other Project Team members, on a monthly basis.
- Telephone conversations with FEMA and other Project Team members on a monthly basis, and an ad hoc basis, as required;
- Updates to the MIP and other FEMA status information systems in accordance with FEMA standards and requirements; and
- E-mail, facsimile transmissions, and letters, as required.

SECTION 12—POINTS OF CONTACT

The points of contact for this Flood Risk Project are Kristen Martinenza, P.E., CFM, the FEMA Regional Project Officer; Marina Blanco-Pape, P.E., the Project Manager for Miami-Dade County; or subsequent personnel of comparable experience who are appointed to fulfill these responsibilities. When necessary, any additional FEMA assistance should be requested through the FEMA Regional Project Officer.

Each party has caused this MAS to be executed by its duly authorized representative.


 Marina Blanco-Pape, P.E.
 Division Director,
 Miami-Dade County Stormwater Utility Planning
 Project Manager
 Miami-Dade County

2015-9-2
 Date


 Kristen Martinenza, P.E., CFM
 Regional Project Officer
 Federal Emergency Management Agency, Region 4

9/8/15
 Date

61

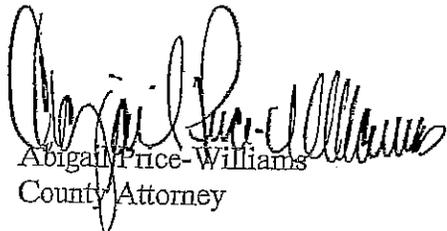


MEMORANDUM

(Revised)

TO: Honorable Chairman Jean Monestime
and Members, Board of County Commissioners

DATE: March 8, 2016

FROM: 
Abigail Price-Williams
County Attorney

SUBJECT: Agenda Item No. 3(B)(1)

Please note any items checked.

- "3-Day Rule" for committees applicable if raised
- 6 weeks required between first reading and public hearing
- 4 weeks notification to municipal officials required prior to public hearing
- Decreases revenues or increases expenditures without balancing budget
- Budget required
- Statement of fiscal impact required
- Statement of social equity required
- Ordinance creating a new board requires detailed County Mayor's report for public hearing
- No committee review
- Applicable legislation requires more than a majority vote (i.e., 2/3's _____, 3/5's _____, unanimous _____) to approve
- Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 3(B)(1)
3-8-16

RESOLUTION NO. R-179-16

RESOLUTION RATIFYING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE'S ACTION TO APPLY FOR UP TO \$1,250,000.00 IN GRANT FUNDS FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) COOPERATING TECHNICAL PARTNERS PROGRAM, AND TO EXECUTE GRANT AGREEMENT NO. EMW-2015-CA-00071-S01; AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO EXERCISE ALL PROVISIONS CONTAINED THEREIN, TO RECEIVE AND EXPEND GRANT FUNDS, TO UPDATE FLOOD INSURANCE RATE MAPS, TO EXECUTE ANY NECESSARY ADDITIONAL APPLICATIONS AND AMENDMENTS AS MAY BE REQUIRED BY PROGRAM GUIDELINES AND TO EXERCISE AMENDMENTS, MODIFICATIONS, RENEWAL, CANCELLATION, AND TERMINATION CLAUSES OF ANY RELATED CONTRACTS AND AGREEMENTS AND ALL RIGHTS CONTAINED THEREIN

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board:

Section 1. Ratifies the County Mayor or County Mayor's designee's actions to apply for grant funds, on behalf of the County, under the Federal Emergency Management Agency (FEMA) Cooperating Technical Partners Program and to execute and accept the terms of Grant Agreement No. EMW-2015-CA-00071-S01.

Section 2. Authorizes the County Mayor or County Mayor's designee to receive and expend federal funds awarded in the amount of \$1,250,000.00 from the U.S. Department of Homeland Security, FEMA Region 4 Office to update Flood Insurance Rate Maps in coordination with the County's Stormwater Management Master Plan, where no matching funds are required.

Section 3. Authorizes the County Mayor or County Mayor's designee to exercise all provisions contained therein, and to execute additional contracts, agreements, memoranda of understanding, and amendments as may be required by program guidelines, provided that no matching funds are required, after review by the County Attorney's Office for form and legal sufficiency.

Section 4. Provided that no matching funds are required, authorizes the County Mayor or the County Mayor's designee to apply for, receive and expend future funds that may become available under this program and to exercise amendments, modifications, renewal, cancellation, and termination clauses of any related contracts and agreements, following review by the County Attorney's Office for form and legal sufficiency.

The foregoing resolution was offered by Commissioner **Sally A. Heyman**, who moved its adoption. The motion was seconded by Commissioner **Barbara J. Jordan** and upon being put to a vote, the vote was as follows:

	Jean Monestime, Chairman	aye	
	Esteban L. Bovo, Jr., Vice Chairman	absent	
Bruno A. Barreiro	aye	Daniella Levine Cava	aye
Jose "Pepe" Diaz	aye	Audrey M. Edmonson	aye
Sally A. Heyman	aye	Barbara J. Jordan	aye
Dennis C. Moss	aye	Rebeca Sosa	absent
Sen. Javier D. Souto	aye	Xavier L. Suarez	aye
Juan C. Zapata	aye		

The Chairperson thereupon declared the resolution duly passed and adopted this 8th day of March, 2016. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this Resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: Christopher Agrippa
Deputy Clerk



Approved by County Attorney as
to form and legal sufficiency.

A handwritten signature in black ink, appearing to read "ASR", is written over a horizontal line.

Abbie Schwaderer-Raurell