

Review & Evaluation of FEMA's Coastal Flood Risk Study

Work Plan, Task Order #1778-01

February 3, 2020 | 13134.201.R1.RevA



Review & Evaluation of FEMA's Coastal Flood Risk Study

Work Plan, Task Order #1778-01

Prepared for:Prepared by:Image: Description of the second of the second

13134.201.R1.RevA

C:\Users\epeterson\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\0RN3OMX0\13134.201.R1.RevA_PBC FEMA Review -Work Plan - 2020-02-03.docx

Revision	Date	Status	Comments	Prepared	Reviewed	Approved
А	2020-02-03	Draft		DS	GT	DS

© 2020 W.F. Baird & Associates Ltd. (Baird) All Rights Reserved. Copyright in the whole and every part of this document, including any data sets or outputs that accompany this report, belongs to Baird and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person without the prior written consent of Baird.

This document was prepared by W.F. Baird & Associates Ltd. for Palm Beach County, Environmental Resource Management. The outputs from this document are designated only for application to the intended purpose, as specified in the document, and should not be used for any other site or project. The material in it reflects the judgment of Baird in light of the information available to them at the time of preparation. Any use that a Third Party makes of this document, or any reliance on decisions to be made based on it, are the responsibility of such Third Parties. Baird accepts no responsibility for damages, if any, suffered by any Third Party as a result of decisions made or actions based on this document.

Table of Contents

1.	Project Overview1
2.	Points of Contact1
3.	Reporting1
4.	FEMA Process2
5.	Schedule2

Tables

Figures

Review & Evaluation of FEMA's Coastal Flood Risk Study Work Plan, Task Order #1778-01



13134.201.R1.RevA

7

 $\sim\sim$

 \sim

1. Project Overview

The objectives of this work effort are to review and evaluate the data and methods used by FEMA and its mapping partner(s) for the preparation of coastal flood hazard maps within the County, identify technical issues or concerns with flood modeling and mapping methodologies, and provide recommendations regarding future coordination with FEMA.

The specific objectives of this study are as follows:

- Review and evaluate Coastal Study data and documents
- Summarize key information and methods used to prepare coastal flood hazard maps
- Determine potential impacts of FEMA not using the 2016 County topographic data
- Evaluate the application of FEMA's methodologies and identify potential technical issues/concerns
- Provide recommendations regarding future coordination with FEMA
- Provide recommendations on submitting comments to FEMA on preliminary FIRMs and FIS Reports
- Provide recommendations to the County on a potential appeal process (if any)

2. Points of Contact

 $\mathsf{FEMA} \leftrightarrow \mathsf{AECOM} \leftrightarrow \mathsf{Palm} \text{ Beach County} \leftrightarrow \mathsf{Baird} \leftrightarrow \mathsf{Moffatt} \text{ Nichol}$

Entity	Name	Phone	Email						
FEMA	TBD	TBD	TBD						
AECOM (Mapping Partner)	Adam Clinch Zachariah Cohoon	(941) 284-4783 (404) 946-9481	adam.clinch@aecom.com zachariah.cohhoon@aecom.com						
Palm Beach County	Jeremy McBryan	(561) 355-400	jmcbryan@pbc.gov						
Baird	Dave Swigler Onur Kurum	(772) 285-8282 (905) 845-5385	dswigler@baird.com okurum@baird.com						
Moffatt Nichol	Lynette Cardoch	(786) 725-4189	lcardoch@moffattnichol.com						

Table 2.1: Points of Contact

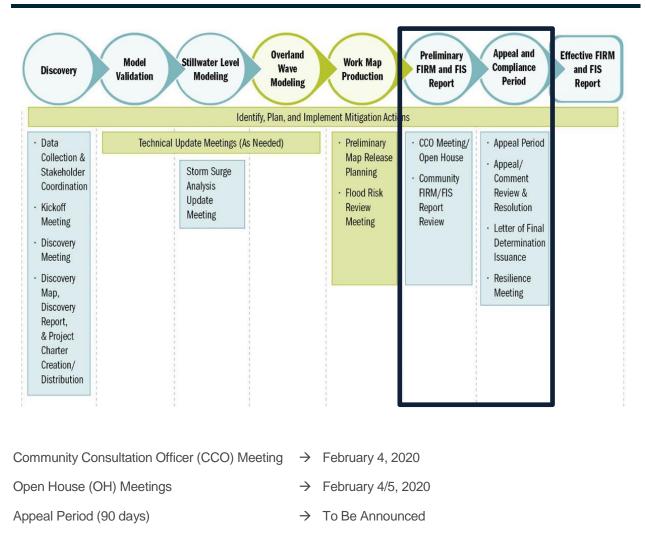
3. Reporting

- The County should be included in correspondence between Baird, AECOM, and FEMA.
- Baird shall keep the County informed regarding the progression of the work and overall schedule. Updates shall entail phone calls, emails, or combinations thereof.
- Baird shall provide drafts of deliverables for the County to review. The County's comments shall then be incorporated into the final deliverables.
- Baird's monthly invoices shall generally be for tasks that are complete. If draft deliverables or measurable progress can be documented for a particular task, then the County may consider partial payment during execution of the work.

Review & Evaluation of FEMA's Coastal Flood Risk Study Work Plan, Task Order #1778-01



13134.201.R1.RevA



4. FEMA Process

5. Schedule

Baird plans to execute the work such that it is complete two (2) weeks prior to the end of FEMA's 90-day appeal period. The schedule shown in Figure 5.1 assumes FEMA's appeal period begins the same date as the Community Consultation Officer (CCO) Meeting. The schedule may be adjusted depending on the actual dates of FEMA's appeal period, receipt of data/information requested from FEMA and its mapping partner (AECOM), and stakeholder coordination.

Review & Evaluation of FEMA's Coastal Flood Risk Study Work Plan, Task Order #1778-01



13134.201.R1.RevA

Image: state Image: state<		Days from FEMA's CCO Meeting*																					
Tax Tax <th></th> <th>-20</th> <th>-11</th> <th>-2</th> <th>-1</th> <th>0</th> <th>1</th> <th>7</th> <th>15</th> <th></th> <th>-</th> <th></th> <th></th> <th>-</th> <th>45</th> <th>51</th> <th>58</th> <th>60</th> <th>61</th> <th>70</th> <th>75</th> <th>77</th> <th>90</th>		-20	-11	-2	-1	0	1	7	15		-			-	45	51	58	60	61	70	75	77	90
10 Project Management & Vork Plan Devidement 12 Concyt Maters Proceed 13 Debuterble - Kolcol Meeting 14 Debuterble - Kolcol Meeting 15 Debuterble - Kolcol Meeting 16 Debuterble - Kolcol Meeting 17 Debuterble - Kolcol Meeting 18 Debuterble - Kolcol Meeting 19 Debuterble - Kolcol Meeting 20 Topografie Evaluation 21 Debuterble - Kolcol Meeting 22 Comparison Of DM is Bertranics + Kolcol Meaturble 23 Debuterble - Kolcol Meeting 24 Comparison Of DM is Bertranics + Kolcol Meaturble 25 Debuterble - Kolcol Meeting 26 Comparison Of Courryle 2016 UDAR Survey 27 Debuterble - Kolcol Meeting 28 Debuterble - Kolcol Meeting 29 Contrained MEEMA - Statkol Meeting 20 Contrained MEEMA - Statkol Meeting 20 Contrained MEEMA - Statkol Meeting 21 Contrained MEEMA - Statkol Meeting 22 Contrained MEEMA - Statkol Meeting 23 Meeting of TEMA - Statkol Meeting 24 Comparison Of Revelo 25 Debuterble - Kolcol Meeting 26 Contrained MEEMA - Statkol Meeting 27 Debuterble - Kolcol Meeting 28 Meeting of TEMA - Statkol Meeting 29 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th>•</th><th>0</th><th></th><th></th><th></th><th>0</th><th></th><th>0</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>							•	0				0		0									
10 Project Management & Vork Plan Devidement 12 Concyt Maters Proceed 13 Debuterble - Kolcol Meeting 14 Debuterble - Kolcol Meeting 15 Debuterble - Kolcol Meeting 16 Debuterble - Kolcol Meeting 17 Debuterble - Kolcol Meeting 18 Debuterble - Kolcol Meeting 19 Debuterble - Kolcol Meeting 20 Topografie Evaluation 21 Debuterble - Kolcol Meeting 22 Comparison Of DM is Bertranics + Kolcol Meaturble 23 Debuterble - Kolcol Meeting 24 Comparison Of DM is Bertranics + Kolcol Meaturble 25 Debuterble - Kolcol Meeting 26 Comparison Of Courryle 2016 UDAR Survey 27 Debuterble - Kolcol Meeting 28 Debuterble - Kolcol Meeting 29 Contrained MEEMA - Statkol Meeting 20 Contrained MEEMA - Statkol Meeting 20 Contrained MEEMA - Statkol Meeting 21 Contrained MEEMA - Statkol Meeting 22 Contrained MEEMA - Statkol Meeting 23 Meeting of TEMA - Statkol Meeting 24 Comparison Of Revelo 25 Debuterble - Kolcol Meeting 26 Contrained MEEMA - Statkol Meeting 27 Debuterble - Kolcol Meeting 28 Meeting of TEMA - Statkol Meeting 29 <t< th=""><th></th><th>502</th><th>202</th><th>020</th><th>020</th><th>020</th><th>020</th><th>202</th><th>202</th><th>202</th><th>020</th><th>202</th><th>202</th><th>202</th><th>202</th><th>202</th><th>020</th><th>020</th><th>020</th><th>202</th><th>202</th><th>202</th><th>020</th></t<>		502	202	020	020	020	020	202	202	202	020	202	202	202	202	202	020	020	020	202	202	202	020
10 Project Management & Vork Plan Devidement 12 Concyt Maters Proceed 13 Debuterble - Kolcol Meeting 14 Debuterble - Kolcol Meeting 15 Debuterble - Kolcol Meeting 16 Debuterble - Kolcol Meeting 17 Debuterble - Kolcol Meeting 18 Debuterble - Kolcol Meeting 19 Debuterble - Kolcol Meeting 20 Topografie Evaluation 21 Debuterble - Kolcol Meeting 22 Comparison Of DM is Bertranics + Kolcol Meaturble 23 Debuterble - Kolcol Meeting 24 Comparison Of DM is Bertranics + Kolcol Meaturble 25 Debuterble - Kolcol Meeting 26 Comparison Of Courryle 2016 UDAR Survey 27 Debuterble - Kolcol Meeting 28 Debuterble - Kolcol Meeting 29 Contrained MEEMA - Statkol Meeting 20 Contrained MEEMA - Statkol Meeting 20 Contrained MEEMA - Statkol Meeting 21 Contrained MEEMA - Statkol Meeting 22 Contrained MEEMA - Statkol Meeting 23 Meeting of TEMA - Statkol Meeting 24 Comparison Of Revelo 25 Debuterble - Kolcol Meeting 26 Contrained MEEMA - Statkol Meeting 27 Debuterble - Kolcol Meeting 28 Meeting of TEMA - Statkol Meeting 29 <t< th=""><th></th><th>15/:</th><th>24/</th><th>2/2</th><th>3/2(</th><th>4/2</th><th>5/2</th><th>11/</th><th>19/</th><th>29/</th><th>5/2</th><th>10/</th><th>13/</th><th>15/:</th><th>20/</th><th>26/</th><th>2/2</th><th>4/2</th><th>2/2</th><th>14/</th><th>19/</th><th>21/</th><th>4/2</th></t<>		15/:	24/	2/2	3/2(4/2	5/2	11/	19/	29/	5/2	10/	13/	15/:	20/	26/	2/2	4/2	2/2	14/	19/	21/	4/2
1.1 Condy Make Proceed Image: Co		4	12	5	Ъ,	5	Ŕ	5	ร่	5	3/	ઝં	3/	3	3/;	3/	4/;	4	4/	4	4	4	5/,
1.2 Kin/d Meding 1.2 Kin/d Meding Summary 1.4 Deliverable																							
1.3 Delivatio 1.4 Delivatio<																							
1.4 Deliverable Image: Control of the stand of the			•																				
				•																			
16 Project Management Imagement Ima					•																		
20 Toggraphic Elevision Data Evaluation 21 Data Minimischic Excitation 22 Data Minimischic Excitation 23 Comparison of DEM's Bernards + Known Hinstructure 24 Comparison of Courty 2016 LDAR Starcy 25 Data Minimischic Excitation 26 Constructure 27 Excitation 28 Excitation 29 Excitation 20 Constructure 20 Construc																							
2.1 Data/formation Exchange Image: Data Montange Image: Data Montan	1.6 Project Management																						
2.2 Review of DEM's Methodology Image: Second and a second and	2.0 Topographic Elevation Data Evaluation																						
2.3 Comparison of DEMs to Banchmarks + Known Minstruture 1 <th></th>																							
2.4 Comparison of County's 2016 LiDAR Survey Image: County's 2016 LiDAR Survey																							
2.5. Delvanable - Technical Memorandum Image: Stakeholder Cordination Image: Stakeholder Cordination Image: Stakeholder Cordination Image: Cordination with FEMA A Stakeholder Stak																							
3.0 FEMA & Stakeholder Coordination Image: Coordination with Stakeholders + Local Governments Image: Coordination Witholders + Local Governments<											1												
11 Coordination with FEMA + Study Contractors (AECOM) Image: Coordination with Stakeholder + Local Governments Image: Coordination + Local Governments Image: Coordinati	2.5 Deliverable - Technical Memorandum											•											1
3.2 Coordination with Stakkholders + Local Governments Image: Stakkholders	3.0 FEMA & Stakeholder Coordination																						
3.3 Meeting #1 (FEMA Community Consultation Officer) 4																							
3.4 Meeting #2 (FEMA Open House) Image: Contract of Review (Contract of Review) Image: Contract of Review) Ima																	1						
3.3. Meeting #3 (TBD - Midpoint of Review) 6<																							
3.6 Meeting #4 (TBD - Review Substantially Complete) Image: Substant						•																	
3.7 Meeting #5 (TBD - Recommendations) 3.8 Deliverable - Technical Memorandum 3.8 Deliverable - T													•										
3.8 Deliverable - Technical Memorandum Image: Source S																	•						
4.1 Data/Information Exchange Image: Coastal Study Documents & Data																						•	
4.1 Data/Information Exchange Image: Control of Contr																		•					
4.2 Review of Study Documents I <th></th>																							
4.3 Deliverable - Technical Memorandum Image: Control of the second secon					1																		
5.0 Storm Surge, Wave Model & Flood Map Evaluation Image: Control of the control																							
5.1 Data/Information Exchange Image: marking in the second of the secon																•							
5.2 Review of Modeling Methologies + Assumptions I <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>																							
5.3 Review of FEMA Mapping Standards Image: Constraint of the standards																							
5.4 Review of Flood Elevation + Hazard Areas with Modeling Image: Control of Elevation + Hazard Areas with Modeling Image: Control of Elevation + Hazard Areas with Modeling Image: Control of Elevation + Hazard Areas with Modeling Image: Control of Elevation + Hazard Areas with Modeling Image: Control of Elevation + Hazard Areas with Modeling Image: Control of Elevation + Hazard Areas with Modeling Image: Control of Elevation + Hazard Areas with Modeling Image: Control of Elevation + Hazard Areas with Modeling Image: Control of Elevation + Hazard Areas Image: Control of Elevatio																							
5.5 Review of Flood Maps with Flood Harzard Areas Image: Constrained flood Harzard Areas																							
5.6 Deliverable - Technical Memorandum 6.0 Final Summary of Tasks 1-5 6.1 6.2 Recommendations																							
6.0 Final Summary 6.1 Summary of Tasks 1-5 6.1 Summary of Tasks 1													1										
6.1 Summary of Tasks 1-5 Image: Constraints Ima	5.6 Deliverable - Technical Memorandum														•								
6.2 Recommendations	6.0 Final Summary																						
6.3 Deliverable - Technical Memorandum																							
	6.3 Deliverable - Technical Memorandum																			•			į

Notes: *The schedule shown assumes FEMA's appeal period begins the date of the Community Consultation Officer (CCO) Meeting. The schedule may be adjusted depending on the actual dates of FEMA's appeal period, receipt of requested data, and stakeholder coordination.

 = Targeted opportunities to solicit County input

Figure 5.1: Schedule

Review & Evaluation of FEMA's Coastal Flood Risk Study Work Plan, Task Order #1778-01

