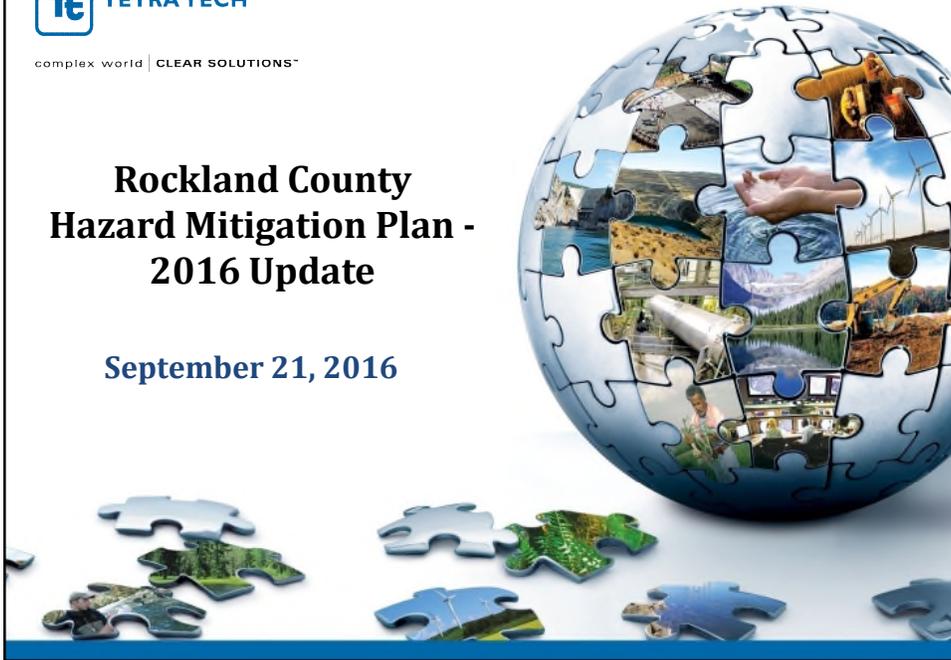




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Rockland County Hazard Mitigation Plan - 2016 Update

September 21, 2016



Today's Topics

- Introductions
- Purpose for a Hazard Mitigation Plan
- Updating a Hazard Mitigation Plan
- Participation Expectations
- Planning Process
- Schedule
- Action Items



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Hazard Mitigation

“Mitigation” -

Sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event



“provides the blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and local ability...” (CFR).

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Rockland County and DMA 2000

The mitigation plan update will:

- Help the County prepare for and mitigate the effects of disasters.
- Reduce county and local response and recovery burdens (\$)
- Build more resilient communities.
- Continue to allow the county and participating partners to be eligible for pre- and post-disaster recovery and mitigation funding.
 - Public Assistance Funding
 - Post-Disaster Reimbursement for Permanent Work (Categories C-G)
 - Post-Disaster Mitigation for Damaged Structures/Infrastructure (406 Mitigation)
 - Pre-Disaster Mitigation Grant Funding (404 Mitigation)
- Support National Flood Insurance Program (NFIP) compliance and, potentially, policy rate reduction efforts

A **Local Mitigation Plan** demonstrates the jurisdiction's commitment to reducing risk and serves as a guide for decision makers as they commit resources to minimize the effects of natural hazards.

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Requirements for Local Mitigation Plan Updates

- Updated Risk Assessment - a factual basis for activities proposed in the Mitigation Strategy section include:
 - Overview of hazards (type, location, probability)
 - Vulnerability analysis (impact on buildings, infrastructure, economy, development trends)
 - Multiple jurisdictions (specific to each city/town/village)
- Updated Mitigation Strategy – a blueprint for reducing losses identified in the risk assessment
- Include the opportunity for public comment and for relevant agency and stakeholder involvement
- Plan Maintenance and Adoption Processes

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Plan Document

- Volume 1 will contain all information that applies to the whole planning area (county) such as description of the planning process, risk assessment, goals and objectives, County/multi-jurisdictional mitigation strategies and a plan maintenance program.
- Volume 2 will contain those elements that are “jurisdiction specific”. Your community’s chapter. These annexes will meet DMA requirements for each jurisdiction.

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Plan Update Process Steps

- Organize Resources
- Re-Assess the Risk
- Review and Update the Mitigation Plan
- Develop Procedures for Plan Implementation, Monitoring and Update
- NYS DHSES / FEMA Approval
- Adopt the Plan

Engage a Wide Range of "Stakeholders"

- Federal, State, Regional and Local Agencies
- Business and Civic Groups
- Academic Institutions
- Other "local governments"
- The Public



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Organization of the Planning Group

- County Management Team (Department of Fire & Emergency Services)
- Contract Consultant (Tetra Tech)
- Steering Committee
- Municipal Planning Partnership
- Stakeholders (e.g. academic, police, fire, health care, business/industry, utilities)
- General Public

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Municipal Planning Partnership

- All municipalities are encouraged to participate to maintain DMA2000 coverage.
- FEMA has greatly expanded their scrutiny of “participation”... Municipalities are required to actively participate.
- All municipalities who wish to join the update process **must formally indicate their intent to participate** with a Letter of Intent to Participate.

Letters of Intent to Participate

Please be sure to forward your Letter of Intent to Participate (LOIP) for your community. Copies will be included in the HMP.

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Municipal Participation

- Attend planning partnership meetings/workshops
- Provide data and information in a timely manner
- Support public and stakeholder outreach in your jurisdiction
- Provide outreach and encourage involvement of property owners in floodplains
- Assist with the development of your jurisdictional annex
- Review and provide feedback on Draft and Final Plan documents
- Facilitate the adoption process – Governing Body must pass an Adoption Resolution once the plan is approved by FEMA
- Implement and Maintain the Plan

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Assemble Your Municipal Mitigation Team

*Here is who we suggest you include as part of your
Hazard Mitigation Planning team:*

- Municipal Mayor/Supervisor/Administrator
- NFIP Floodplain Administrator
- Building Code Official
- Public Works Superintendent
- Municipal Engineer
- Land Use Planner
- Municipal Clerk
- Municipal CFO/Fiscal Representative
- Police/Fire/EMS Representatives

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Municipal Participation Support

Municipal Involvement will be encouraged and promoted by:

- Three formal municipal planning partnership meetings (Kick-Off Meeting (today), FEMA Mitigation Strategy Workshop, Annex Completion Workshop)
- Data collection and annex tools, templates, surveys
- Local Data Collection Meetings (as requested)
- Completion of Municipal Annex supports “buy in” and “ownership”
- Planning process execution and municipal training programs designed to build local capability
- Local public outreach including RL/SRL flood structure outreach

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Data Collection Worksheets

Rockland County **ROCKLAND COUNTY HAZARD MITIGATION PLAN UPDATE** 
Outline of Worksheets on CD

Please work with your municipal planning team and complete this worksheet. Please send electronic Word version by October 21, 2015 to:
 Jonathan Raser, CFM
 Phone: 973-630-8042 E-mail: jonathan.raser@tetratech.com

#	Worksheet Name	Who is Responsible to Complete and Submit this Worksheet?	Where do you find the requested information?
1	Event Losses	OEM, Police, Fire, DPW, Engineer	FEMA Project Worksheets (PW's) DPW records, Police response records
2	Capability Assessment	Code Official, Planner, CFO/Financial Rep, Clerk	Code Book, s-Code, Municipal ordinances, Master Plan
3	NFIP Floodplain Administrator	Floodplain Administrator	NFIP Records
4	Mitigation Action Program	HMP Main POC – see "Responsible Party" column in the table provided for guidance	LOIs, NYS DHSES Grants, Capital Improvement records
5	Plan Integration Questionnaire	HMP Main POC	Discuss with Engineer, Clerk, Administrator, Planner, CFO, and Municipal Mayor/Administrator
6	New Development Table	Engineer, Planner, Building Department	Redevelopment Plan, Formulas

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Re-Assess the Risk



These are the Five Steps to Assess Risk:

1. Identify Hazards
2. Profile Hazards
3. Inventory Assets
4. Estimate Losses
5. Evaluate Mitigation Options

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Assess the Risk – Hazard of Concern Identification

Hazards of Concern (HOCs)- Those natural hazards that pose significant risk to the Planning Area – and we can address through mitigation rather than only through preparedness, response and recovery.

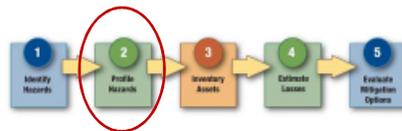
- Review and update the “hazards of concern” that we will carry through the planning process.
- Our effort should be proportional to the risk the hazards pose.
- Each municipality has differing risk to the HOCs.
- We are generally limiting this plan to natural hazards:
 - Extreme Temperature
 - Flood (riverine, ice jam, flash, dam failure [incl. beaver dams])
 - Hurricanes and Tropical Storms (including storm surge)
 - Severe Storm (hail, wind, severe thunderstorms, and tornadoes)
 - Severe Winter Weather (heavy snow, blizzard, ice storm, Nor’Easters)
 - Climate Change will be discussed as an exacerbating condition of other hazards (e.g. storms, flood)
 - Drought – To Be Determined
 - Wildfire – To Be Determined
 - Earthquake – To Be Determined



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Assess the Risk – Hazard Profiling (Worksheet #1 on your CD)

- Hazards are profiled (characterized) according to:
 - Background and local conditions
 - Historic frequency and probability of occurrence
 - Severity
 - Historic losses and impacts
 - Designated hazard areas
- What hazard events have occurred since the 2010 Plan?
- What County and local losses have occurred as a result of these events?



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Worksheet #1 on CD Events and Losses

ROCKLAND COUNTY HAZARD MITIGATION
PLAN UPDATE
Worksheet #1 – Events and Losses

Please work with your municipal planning team and complete this worksheet. Please send electronic Word version by October 21, 2016 to:
Jonathan Rorer, CFM
Phone: 972-620-8042 E-mail: jonathan.rorer@rockco.net

Municipality: _____
Name and Title of Individual Completing Worksheet: _____

Who can provide information about events and losses: OEM Coordinator, Police, Fire, DPW, building inspector, municipal engineer. Refer to FEMA Project Worksheets (PWs), DPW records, police response records, etc.

In the table below, please identify events in which your community suffered significant damages/losses and describe these losses (e.g., flooded roads, road closures, DPW/Police overtime, debris management, opened shelter for two days, etc.). Please add other non-declared events that affected your community that are not listed.

Then, please fill out an "Event and Loss Summary Sheet" for all events that have incurred significant damages/losses. Feel free to add additional sheets for other major events that impacted your community.

Date of Event	Event Type (Disaster Declaration if applicable)	Rockland County Designated?	Did your community suffer losses/costs from this event? (Yes/No - If "yes" please complete an Event Loss Summary sheet for this event)	Notes on losses you within County
August 10, 2008	Thunderstorm	SI-A		\$25,000 in damages throughout County
January 25, 2010	High Wind	SI-A		\$10,000 in damages throughout County
March 13-31, 2010	Severe Storms and Flooding DR-1899	Yes	None - all should fill out an Event Loss Summary sheet for this event	
July 19, 2010	Thunderstorms, Lightning, Wind	SI-A		\$30,000 in damages throughout County
December 16, 2010	Severe Winter Storm and		None - all should fill out	

If your community suffered significant damages/losses from this event, indicate "Yes" and complete an Event Loss Summary Sheet.

Worksheet #1 on CD Events and Losses (Continued)

ROCKLAND COUNTY HAZARD MITIGATION
PLAN UPDATE
Worksheet #1 – Events and Losses

Event and Loss Summary Sheet
DR-1899 - March 13-31, 2010 Severe Storms and Flooding

Event Date and Description (incl. DR# if applicable): _____

Life Safety (evacuation, sheltering, injuries, deaths): _____

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected): _____

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.): _____

Facility/Structural Damage – Public (e.g. police, school, etc.): _____

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.): _____

Assess the Risk – Inventory Assets

What is at risk? People, Property, Economy, Environment

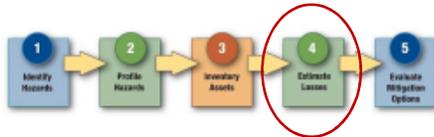
- Population and Demographics – Has this changed since 2010?
- Building Stock (Residential, Commercial, Industrial, Educational, etc.) – Has this changed since 2010?
- Facilities (critical and essential facilities, utilities, transportation features, high-potential loss facilities and user-defined facilities)
 - Police, Fire, Emergency Services
 - Hospitals and Medical Care Facilities
 - Schools and Care Facilities
 - Sheltering Facilities
 - Infrastructure (Transportation Systems, Utilities)



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Assess the Risk – Estimate Losses

- Vulnerability Assessment - What do we predict our suffering to be if we do nothing to mitigate our risk:
 - Given current conditions, which have changed since 2010?
 - Given our improved understanding of risk, and tools to assess that risk, which have changed since 2010?



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Assess the Risk – Evaluate Mitigation Options

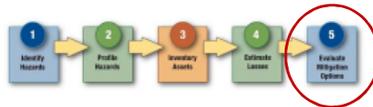
➤ Re-evaluate Hazard Mitigation Goals and Objectives

Goals: General guidelines that state what we want to achieve.
Should be consistent with the State goals and other local goals.

Example: “Protect property”

Objectives: Define strategies or implementation steps to attain a stated goal.

Example: “Enact or enforce regulatory measures that ensure new development will not increase flood threats to existing properties”.



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Assess the Risk – Evaluate Mitigation Options

➤ Evaluate Capabilities

What resources do we have at our disposal to Mitigate Risk?

“Proposed mitigation actions will be evaluated against the backdrop of what is feasible in terms of your government’s legal, administrative, fiscal and technical capacities”
(FEMA 386-3)

- Serve to identify legal authority and administrative, technical and fiscal capabilities in the state, county and jurisdictions that will facilitate or hinder hazard mitigation goals and objectives.
- State Capability Assessment is in the State HMP
- Part of this Planning Process is to build County and Local Mitigation Capabilities
- Training, Workshops and Seminars

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Capability Assessments (Worksheet #2 on CD)

Please work with your planning team to complete the worksheets and return to Jonathan Raser by October 21, 2016.

- Municipal Mayor/Supervisor
- Administrator
- Building Code Official
- Municipal Engineer
- Land Use Planner
- Municipal Clerk
- Floodplain Administrator
- CFO/Fiscal Representative

Rockland County
ROCKLAND COUNTY HAZARD MITIGATION
PLAN UPDATE
Worksheet #2 - Capability Assessment

Please work with your municipal planning team and complete this worksheet. Please send electronic Word version by October 21, 2016 to:
Jonathan Raser, CFM
Phone: 973-610-8043 E-mail: jonathan.raser@tetratech.com

Municipality: _____
Name and Title of Individual Completing Worksheet: _____

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the name of adoption/issue. Time, for each particular item or plan, identify the department or agency responsible for its implementation. In addition, indicate the code chapter, and areas of plan including any explanation of activity in the right-most column.

Who can assist with completing this table: Municipal Planner, Clerk, Code Official. Refer to your municipal codes and ordinances, Master Plan.

Tool / Program (Include adoption year)	Is one being developed (Planned)	Adopted, but, not in effect	High Agency Responsibility	Code Chapter (name of plan, organization of ordinance, etc.)
Local Plan				
Local Improvement Plan				
Floodplain Management, Storm Plan				
Resource Management Plan				
Open Space Plan				
Storm Control Management Plan				
Industrial Management or Protection Plan				
Business Development Plan				

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NFIP Compliance

We need the NFIP Floodplain Administrator Involved!

- We need to know specific information about the NFIP program in your community.
- Your NFIP Floodplain Administrator (FPA) **MUST** be actively involved in the update process.
- NFIP Administrator to work with Tetra Tech to complete **Worksheet #3** (best done in a short interview – live or phone)

Rockland County
ROCKLAND COUNTY HAZARD MITIGATION
PLAN UPDATE
Worksheet #3 - NFIP Floodplain Administrator
Questionnaire

Please work with your municipal planning team and complete this worksheet. Please send electronic Word version by October 21, 2016 to:
Jonathan Raser, CFM
Phone: 973-610-8043 E-mail: jonathan.raser@tetratech.com

Municipality: _____
NFIP Floodplain Administrator Name/Title: _____

Flood Vulnerability Summary

- Does the municipality maintain lists/inventories of properties that have been flood damaged? If so, does this inventory identify property owners who are interested mitigation (e.g. elevation, acquisition)?
- Characterize/quantify the number of structures damaged during Floyd, Irene, Sandy or other events. If possible, can you provide a table of these structures indicating the number of residential / commercial / industrial?
- Do you make Substantial Damage estimates, and how many were declared for Sandy or other events?

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Update, Identification and Analysis of Mitigation Actions

- Mitigation strategies need to be realistic, achievable and action-oriented.
- Will include both regional (county-wide) strategies, as well as jurisdiction-specific.
- For each proposed mitigation strategy, the following will be identified:
 - Implementation timeline
 - Estimated budget
 - Potential funding sources
 - Lead agency or department
 - Supporting agencies
 - Priority
 - For prior/old strategies provide update of status
- Proposed mitigation activities are evaluated using a Cost-Benefit Screening



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Update Progress on 2010 Actions

- Identify progress made on mitigation actions identified in 2010 Plan.
- If an action wasn't completed, why not?
- This strategy review process is NOT meant to blame or punish. The answer can reveal things that need to be addressed to allow mitigation to progress, for example:
 - Obstacle: We do not have the technical resources to prepare a grant application.
 - Possible Action: Develop a county-level support team trained in application development.

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Update Progress on 2010 Actions (Worksheet #4 on CD)

Please work with your planning team to complete the worksheets and return to Jonathan Raser by October 21, 2016.

Rockland County
Rockland County Hazard Mitigation Plan Update
Worksheet #4 - Mitigation Action Review Worksheet for
Rockland County

Please work with your municipal planning team and complete this worksheet. Please send electronic Word version by October 21, 2016 to:
Jonathan Raser, CEM
Phone: 513-433-4542 E-mail: jonathan.raser@rocktech.com

Who can provide you information about past mitigation actions? See the 'Responsible Party' column in the table below which identifies who put this action in the 2010 HMP (e.g., DPW, Engineer, Code Official, Planner, OEDM Coordinator).

Please use the following table to indicate progress and next steps on your community's mitigation strategy identified in the 2010 HMP. Please be as detailed as possible.

Action Number	2010 Mitigation Action	Responsible Party	Status (In progress, In progress, Complete)	Responsible Party 1. Please describe what you accomplished and estimate % complete. 2. If there is more progress, indicate what activities (tasks) remain to be completed? 3. If there are no progress, have to complete, when being funded (e.g., FEMA 1995B) grant, local budget?	Next Step (Include in 2016 HMP or otherwise)	Responsible Party 1. If including action in the 2016 HMP, please describe to whom specific (at appropriate) responsibility. 2. If discontinued, explain why.
A-0001	Arisee Main Street Bridge	DPW	In Progress	1. 0% complete 2. Budget and personal resources have funded this action, but waiting for award of FEMA funding secured	Arisee in 2016 HMP	1. Arisee Main Street Bridge above the local flood elevation 2. If there is no "Theoretical" wet in an example - the Arisee wet has the capacity to remove the bridge. It is covered by the State

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New Mitigation Actions for 2016 HMP Update

- Opportunity to add new mitigation actions
- This includes all in-progress grant applications (FEMA or other related grant programs)
- Proposed mitigation actions should address identified vulnerabilities
- **FEMA's Mitigation Workshop – August 2016**



"At the first sign of a flood, you just push this little button."

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Types of Mitigation Actions

- **Plans and/or Regulations.** Measures such as zoning and building code, ordinances, planning (comprehensive/master plans, stormwater management plans, open space), hazard/risk insurance (e.g. NFIP).
- **Property Protection.** Measures such as acquisition, elevation, relocation, structural retrofits, storm shutters, rebuilding, barriers, floodproofing.
- **Public Education and Outreach.** Measures such as public awareness projects, real estate disclosure, hazard information centers, technical assistance.
- **Natural Resource Protection.** Measures such as erosion and sediment control, stream corridor protection, vegetative management, wetlands preservation.

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Plan Implementation

- Your mitigation strategy section provides a “blueprint” to follow for progressively reducing your community’s natural hazard risk.
- It will include two types of initiatives/projects – those that your community can “self fund”, and those that will require outside (e.g. grant) funding.
- Mitigation grant opportunities open regularly:
 - The annual HMA grant window opens in June of each year.
 - HMGP funding comes in the wake of Declared Disasters in the State.

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Integration with Other Plans and Programs

The Hazard Mitigation Plan should complement and support other Plans and Regulatory Mechanisms

- Emergency Operations Plan (EOP) / Comprehensive Emergency Management Plans (CEMP)
- Master Plans (regional and local) – these plans guide and direct land use and development
- New York Rising Community Reconstruction Plans (NYRCR) – Clarkstown, Stony Point, Village of Suffern
- Capital Improvement Plans (some of these projects are grant eligible)
- Higher Regulatory Standards (e.g. increased free-board, cumulative substantial damages)
- Stormwater Management Plans
- NYSDEC Climate Smart Communities Program – County, Clarkstown, Orangetown, Montebello, Haverstraw, Nyack, Piermont

Plan Integration (Worksheet #5 on your CD)

- For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. We need to gather an understanding of your community's progress in plan integration, as well identify potential integration opportunities that you may pursue in the future.
- Circulate to your "team" to complete. Please expand on your answers when appropriate!

ROCKLAND COUNTY HAZARD MITIGATION PLAN UPDATE Worksheet #5 - Capability Assessment and Plan Integration Worksheet	
<p>Principal: _____</p> <p>Name and Title of Individual Completing Worksheet: _____</p> <p>Please work with your local planning, fire and emergency services. Please send electronic files to: RocklandCounty@rocklandny.gov Phone: 914 618-3642 Email: RocklandCounty@rocklandny.gov</p> <p><small>For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. We need to gather an understanding of your community's progress in plan integration, as well identify potential integration opportunities that you community may pursue in the future.</small></p> <p><small>This one sheet will complete this table. The CD (main part of contract) should discuss with the Engineer, Clerk, Mayor/Administrator, Planner, CFO, Building Code Official, 1025a Planning Administrator</small></p>	
Available Resources (Agency)	Planning
Hazard (EOP or 1025a); Planning (any zoning codes or requirements) (ZMA)	<p>State of readiness for a Hazard/Comprehensive Plan (or other plan, if any you currently working on in support of your Hazard/Comprehensive Plan?)</p> <p>If you have a review, are you considering, areas of review (overall or by hazard/plan area, zoning codes)?</p> <p>Does your Hazards/Comprehensive Plan refer to a local or Countywide Hazard Mitigation Plan?</p>
Review (ZMA or zoning) (Stormwater Management)	<p>Are you an 1025a Regional Community, and do you have a Stormwater Management Plan?</p> <p>Do you have any local projects/initiatives/initiatives to reduce the source of (stormwater, or other risk hazard/damage/losses)?</p>

Worksheets #1 – #6

Please work with your planning team to complete the worksheets and return to Jonathan Raser by October 21, 2016.

All electronic templates are on your CD in the 'Worksheets' folder.

#	Worksheet Name	Who is Responsible to Complete and Submit this Worksheet?	Where do you find the requested information?
1	Events/Losses	OEM, Police, Fire, DPW, Engineer	FEMA Project Worksheets (PWs) DPW records, Police response records
2	Capability Assessment	Code Official, Planner, CFO/Fiscal Rep, Clerk	Code Book, e-Code, Municipal ordinances, Master Plan
3	NFIP Floodplain Administrator	Floodplain Administrator	NFIP Records
4	Mitigation Action Progress	HMP Main POC – see 'Responsible Party' column in the table provided for guidance	LOIs, NYS DHSES Grants, Capital Improvement records
5	Plan Integration Questionnaire	HMP Main POC	Discuss with Engineer, Clerk, Administrator, Planner, CFO, and Municipal Mayor/Administrator
6	New Development Table	Engineer, Planner, Building Department	Redevelopment Plans, Permits

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Thank you!

Jonathan Raser, CFM
Tetra Tech, Inc.
jonathan.raser@tetrattech.com

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