### **Allen Township, Northampton County Annex**

#### **Hazard Mitigation Plan Points-of-Contact**

### **Primary:**

Gary Krill
Emergency Management Coordinator (EMC)
29 Debbie Road, Northampton, PA 18067
610-262-0293
garykrill@gmail.com

#### **Alternate:**

Ilene Eckhart Township Manager 50 Snow Hill Road, Northampton, PA 18067 610-262-7012 manager@allentownship.org

#### **Municipal Profile**

Allen Township is a rural township located in the northwestern part of Northampton County, on the border with Lehigh County. It encompasses an area of approximately 11.2 square miles and has a population of 5,456 (2020 Census). The township is bordered by Lehigh Township to the north; Moore Township to the northeast; East Allen Township to the east; Hanover Township (Lehigh County) and Catasauqua (Lehigh County) to the south; North Catasauqua to the southwest; and Northampton Borough, Whitehall Township (Lehigh County), and North Whitehall Township (Lehigh County) to the west.

The Lehigh River forms the Township's western border north of Northampton Borough. The Hokendauqua Creek runs from the mountains north of the township, through the northern part of the township and into Northampton Borough on its way to the Lehigh River.

PA Route 329 (Nor-Bath Boulevard), which links Northampton, PA and Bath, PA, is the major east west roadway in the township. Indian Trail Road / Howertown Road / Weaversville Road, Cherryville Road, Kreidersville Road, and Willowbrook Road are the major north-south roads.

#### **Municipal Participation**

1. Identify municipal stakeholders to be involved in the planning process such as, floodplain administrator, public works, emergency management, engineers, planners, etc., and include their specific role in the process.

Gary Krill, Local EMC	llene Eckhart, Township Manager				
Role: Recommendations – Planning/Board of Supervisors	Role: Township Manager				
Mark Schwartz, PE, Township Engineer	Tom Gogle, Public Works Leader				
Role: Land use review, facilities recommendations	Role: Local roads				

2. Identify community stakeholders such as; neighborhood groups, religious groups, major employers / businesses, etc., that will be informed and / or involved in the planning process and describe how they will be involved.

N/A

3. Describe how the public **will be engaged** in the current planning process (examples, newsletters, social media, etc.), **and how they were engaged** since the 2018 Hazard Mitigation Plan.

Current: Newsletters, Website, Social media

Past: Same

### **Compliance with the National Flood Insurance Program (NFIP)**

Topic	Identify source of information if different from the one listed.	Additional Comments		
1. Staff Resources				
Is the Community Floodplain Administrator (FPA) or NFIP Coordinator certified?	Community FPA	N/A		
Is floodplain management an auxiliary function?	Community FPA	N/A		
Provide an explanation of NFIP administration services (e.g., permit review, GGIS, education or outreach, inspections, engineering capability)	Community FPA	N/A		
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	N/A		
2. Compliance History				
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, or community records	N/A		
Are there any outstanding compliance issues (i.e., current violations)?		N/A		
When was the most recent Community Assistance Visits (CAV) or Community Assistance Contact (CAC)?		N/A		
Is a CAV or CAC scheduled or needed?		N/A		
3. Regulation				
When did the community enter the NFIP?	NFIP Community Status Book	9/6/1974		
Are the Flood Insurance Rate Maps (FIRMs) digital or paper? How are residents assisted with mapping?	Community FPA	N/A		
Do floodplain regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	N/A		
Describe the permitting process	Community FPA, State, FEMA NFIP	N/A		
4. Insurance Summary				
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	As of 9/22/2023 – 5 policies & \$5,145 in premiums		
How many claims have been paid in the community? What is the total amount of paid claims? How many substantial damage claims have there been?	FEMA NFIP or Insurance Specialist	As of 9/22/2023 – 4 claims & \$38,298.79 paid to claims		
How many structures are exposed to flood risk within the community?	Community FPA or GIS Analyst	N/A		
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA or FEMA Insurance Specialist	N/A		

### **Compliance with the National Flood Insurance Program (NFIP)** – continued

5. Community Rating System (CRS)								
Does the community participate in CRS?	Community FPA, State, or FEMA NFIP	N/A						
If so, what is the community's CRS Class Ranking?	Flood Insurance Manual (http://www.fema.gov/floodinsurancemanual.gov)	N/A						
What categories and activities provide CRS points and how can the Class be improved?		N/A						
Does the plan include CRS planning requirements?	Community FPA, FEMA CRS Coordinator, or ISO representative	N/A						

#### **Community Assets**

Community assets are defined to include anything that is important to the character as well as the function of a community, and can be described in four categories, they are; people, economy, natural environment and built environment. Please identify the community assets and location under each category.

#### 1. People

→ Concentrations of vulnerable populations such as the elderly, physically or mentally disabled, non-English speaking, and the medically or chemically dependent.

55+ gated community - Willow Green

→ Types of visiting populations where large numbers of people are concentrated such as visitors for special events and students.

None

#### 2. Economy

→ Major employers, primary economic sectors such as agriculture and commercial centers where losses would have a severe impact on the community.

Geodis Warehouse	FedEx Regional Distribution Hub					
Century Commerce Warehouse	Jaindl Watson Warehouses					

#### 3. Natural Environment

→ Those areas / features that can provide protective functions that reduce the magnitude of hazard events such as, wetlands or riparian areas, and other environmental features important to protect.

Wetlands Floodplains (unobstructed)

#### 4. Built Environment

→ Existing structures such as, concentrations of buildings that may be more vulnerable to hazards based on location, age, construction type and / or condition of use.

None

→ Infrastructure systems such as water and wastewater facilities, power utilities, transportation systems, communication systems, energy pipelines and storage.

Seigfried Substation PPL Bethlehem Water Main Infrastructure

#### **Community Assets** – continued

→ High potential loss facilities such as, dams, locations that house hazardous materials, military and / or civilian defense installations.

Maurer & Scott

→ Critical facilities such as, hospitals, medical facilities, police and fires stations, emergency operations centers, shelters, schools and airports / heliports.

Catasauqua High School

Allen Township Fire Station & Township Building

→ Cultural / historical resources such as, museums, parks, stadiums, etc.

Kreidersville Covered Bridge (only one in Northampton County)

# **Capability Assessment**

			Status			Effect on Hazard Loss	Change	Has the 2024	How can	
Capability	<ul><li>✓ Regulatory</li><li>✓ Tools</li><li>✓ Programs</li></ul>	In Place	Date Adopted or Updated	Under Development	Department / Agency Responsible	Reduction:  - <u>S</u> upports  - <u>N</u> eutral  - <u>H</u> inders	since 2024 Plan? + Positive - Negative	Plan been integrated into the Regulatory Tool/Program ? If so, how?	these capabilities be expanded and improved to reduce risk?	Additional Comments
	Comprehensive Plan	X	10/12/17		Board of Supervisors	S	+			
	Capital Improvement Plan			X	Board of Supervisors		+			
	Economic Development Plan									
	Continuity of Operations Plan									
	Stormwater Management Plan / Ordinance	Х	2014			S	+			
>	Open Space Management Plan (or Parks/Rec., Greenways Plan)			Χ	Board of Supervisors					
to	Natural Resource Protection Plan									
anla	Transportation Plan									
Regulatory	Historic Preservation Plan									
∞ర	Floodplain Management Plan	X				S				
ing	Farmland Preservation									
Planning	Evacuation Plan									
	Disaster Recovery Plan									
<del>-</del>	Hazard Mitigation Plan	X	2024					N/A		
	Emergency Operations Plan	X	2022							
	Zoning Regulations	X	Updates 3/28/17							
	Floodplain Regulations									
	NFIP Participation									
	Building Code	X								
	Fire Code	X								
	Other									

# **Capability Assessment** – continued

Capability	✓ Staff ✓ Personnel ✓ Resources	Yes	No	Department / Agency	Change since 2024 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
	Planners (with land use / land development knowledge)	Х		Board of Supervisors			
<u>&gt;</u>	Planners or engineers (with natural and / or human caused hazards knowledge)	X		Board of Supervisors			3 <sup>rd</sup> party engineering Barry Isett
olou	Engineers or professionals trained in building and / or infrastructure construction practices (including building inspectors)	Х		Board of Supervisors			-
& Technology	Emergency Manager	X		Board of Supervisors			Emergency Management Coordinator
ative	Floodplain administrator / manager	Х		Board of Supervisors			
Administrative	Land surveyors	Х		Board of Supervisors			
Admi	Staff familiar with the hazards of the community	Х		Board of Supervisors			
2.7				Board of Supervisors			
	Grant writers or fiscal staff to handle large / complex grants			Board of Supervisors			
	Other						

# **Capability Assessment** – continued

Capability		Yes	No	Department / Agency	Change since 2024 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
	Capital improvement programming	X		Board of Supervisors			
ဟ	Community Development Block Grants (CDBG)						
sonrces	Special purposes taxes						
nos	Gas / Electricity utility fees						
Re	Water / Sewer fees	Х		Board of Supervisors			
cia	Stormwater utility fees						
Financial	Development impact fees						
	General obligation, revenue, and / or special tax bonds						
S	Partnering arrangements or intergovernmental agreements	X		Board of Supervisors			
	Other						

	Capability	✓ Program ✓ Organization	Yes	No	Department / Agency	Change since 2024 Plan? + Positive - Negative	How can these capabilities be expanded and improved to reduce risk?	Additional Comments
		Firewise Communities Certification						
	ach	StormReady Certification						
	utre	Natural disaster or safety-related school programs						
	೦ ಶ	Ongoing public education or information programs such as, responsible water use, fire safety, household preparedness, and environmental education.	X		Board of Supervisors			
	ation	Public-private partnership initiatives addressing disaster related issues.						
4. Educa	Educ	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.						
		Other						

### **Capability Assessment** – *continued*

billity		Deg	ree of Capab	ility	Change since the 2024 Hazard Mitigation Plan?	Additional Comments	
Capal		Limited	Moderate	High	If so, how?	,	
#	Planning and Regulatory		Х				
Self –	Administrative and Technical		X				
5. Sess	Financial		X				
As	Education and Outreach		Х			Improved due to website upgrade, social media, etc.	

### **Known or Anticipated Future Development / Redevelopment**

Development / Property Name	velopment / Property Name Type of Development Number of Structures Location		Known Hazard Zone	Description / Status	
Rockefeller Industrial Lot #4	Industrial – Warehouses	1	Willowbrook Road		21.68-acre site; 290,788 SF warehouse
Fed Ex Land Development	Ex Land Development Industrial Distribution Warehouse 1		Willowbrook Road		1,200,000 SF ground hub
Century Commerce Center, Northampton Industrial Park	Industrial – Warehouses	3	N. Rt. 329 between Seemsville and Howertown Roads		Buildings: 250,000; 1,006,880; 315060 SF on 144 acres
Jaindl Land Company, Northampton Business Center				Buildings: Total 2,510,000 SF on 288 acres	
Rockefeller Industrial Lot #5	Industrial – Warehouses	1	Willowbrook Road		1,030,000 SF on 70 acres

### **Natural & Non-Natural Event History**

Type of Event and Date(s)	FEMA Disaster # (if applicable)	Local Damage(s) or Loss(es)
Pennsylvania COVID-19 Pandemic – 1/2020	DR-4506-PA	Emergency Protective measures to combat COVID-19 Pandemic.
Remnants of Hurricane Ida	DR-4618-PA	Assistance to eligible individuals and families affected by this disaster.

# 2018 Municipal Action Plan Status

			Status			
Existing Mitigation Action (from 2018 Hazard Mitigation Plan)	No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	Additional Comments
Retrofit structures located in hazard prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.  Phase 1: Identify appropriate candidates for retrofitting based on cost effectiveness versus relocation.  Phase 2: Where retrofitting is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.	X					
Purchase, or relocate structures located in hazard- prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.  Phase 1: Identify appropriate candidates for relocation based on cost-effectiveness versus retrofitting.  Phase 2: Where relocation is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.	Х					
Maintain compliance with and good standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP- related continued compliance actions identified as Initiatives below.			X			

### **2018 Municipal Action Plan Status** – *continued*

				Status			
	Existing Mitigation Action (from 2018 Hazard Mitigation Plan)	No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	Additional Comments
4	Conduct and facilitate community and public education for residents and businesses to include, but not be limited to, the following to promote and effect hazard risk reduction:  - Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages.  - Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation.  - Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures.  - Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.				Х		Action related to NFIP compliance carried through to 2023 Actions
5	Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements) and sinkhole risk (e.g. carbonate bedrock standards).				X		Action related to NFIP compliance carried through to 2023 Actions
6	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.			Х			
7	Have designated NFIP Floodplain Administrator (FPA) become a Certified Floodplain Manager through the ASFPM and/or pursue relevant continuing education training such as FEMA Benefit Cost Analysis.	Х					
8	Participate in the Community Rating System (CRS) to further manage flood risk and reduce flood insurance premiums for NFIP policyholders. This shall start with the submission to FEMA-DHS of a Letter of Intent to join CRS, followed by the completion and submission of an application to the program once the community's current compliance with the NFIP is established.	X					
9	Obtain and archive elevation certificates for NFIP compliance.			Х			
10	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0.			X			
11				X			
12	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.			X			

### **2018 Municipal Action Plan Status** – *continued*

				Status				
	Existing Mitigation Action (from 2018 Hazard Mitigation Plan)	No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	Additional Comments	
13	Develop and maintain capabilities to process FEMA/PEMA paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/PEMA paperwork compilation, submissions, record keeping.			Х				
14	Work with regional agencies (i.e. County and PEMA) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).			Х				

#### Notes:

- 1. Actions not carried through to the 2023 Action Plan are so noted.
- 2. To maintain National Flood Insurance Program (NFIP) compliance, actions related to the NFIP were carried through to the 2023 Action Plan even if identified by the municipality as completed.

# **2024 Mitigation Action Plan**

	Mitigation Action	Mitigation Action Category	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
1	Retrofit structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.  Phase 1: Identify appropriate candidates for retrofitting based on cost-effectiveness versus relocation.  Phase 2: Where retrofitting is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.	1	Structure & Infrastructure	Flood	High	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) w/ support from PEMA, FEMA	Long-term (depending on funding)	Existing
2	Purchase, or relocate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Phase 1: Identify appropriate candidates for relocation based on cost-effectiveness versus retrofitting. Phase 2: Where relocation is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.	2	Structure & Infrastructure	Flood	High	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) w/ support from PEMA, FEMA pal	Long-term (depending on funding)	Existing

	Mitigation Action	Mitigation Action Category	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
;	Maintain compliance with and good standing in the NFIP including adoption & enforcement of floodplain management requirements (e.g. regulating all new & substantially improved construction in Special Hazard Flood Areas), floodplain identification & mapping, & flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP- related continued compliance actions identified below.	3	Local plans & Regulations	Flood	High	High	Municipal Budget	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) w/ support from PEMA, ISO FEMA	Ongoing	New & Existing

	Mitigation Action	Mitigation Action Category	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and/or Existing Structures
4	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:  - Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages.  - Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation.  - Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures.  - Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.	4	Education & Awareness	All Hazards	High	Low- Medium	Municipal Budget	Municipality w/ support from Planning Partners, PEMA, FEMA	Short-term	N/A

Mitigation Action	Mitigation Action Category	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
Begin and/or continue the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage / improvements) sinkhole risk (e.g. carbonate bedrock standards).	5	Local plans & Regulations	Flood; Subsidence / Sinkholes	High	Low	Municipal Budget	Municipality (Mun. Engineer / NFIP Floodplain Adm.) w/ support from PEMA, FEMA	Short-term	New & Existing
Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.	3	Local plans & Regulations	Flood	High	Low	Municipal Budget	NFIP Floodplain Administrator w/ support from PADEP, PEMA, FEMA	Short-term	N/A
Have designated NFIP Floodplain Administrator (FPA) become a Certified Floodplain Manager through the ASFPM and/or pursue relevant continuing education training such as FEMA Benefit-Cost Analysis.	6	Local plans & Regulations	Flood	Medium	Low	Municipal Budget	NFIP Floodplain Administrator	Short-term (depending on funding)	N/A
Participate in the Community Rating System (CRS) to further manage flood risk and reduce flood insurance premiums for NFIP policyholders. This shall start with the submission to FEMA-DHS of a Letter of Intent to join CRS, followed by the completion and submission of an application to the program once the community's current compliance with the NFIP is established.	7	Local plans & Regulations	Flood	High	Low	Municipal Budget	NFIP Floodplain Administrator w/ support from PADEP, PEMA, FEMA	Short-term	N/A

	Mitigation Action	Mitigation Action Category	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
9	Obtain and archive elevation certificates for NFIP compliance.	8	Local plans & Regulations	Flood	Low	Low	Municipal Budget	NFIP Floodplain Administrator	Ongoing	N/A
10	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0.	9	All Categories	All Hazards	High	Low – High (for 5-year update)	Municipal Budget, possibly FEMA Mitigation Grant Funding for 5-year update	Municipality (via mitigation planning point of contacts) w/ support from Planning Partners (through their Points of Contact), PEMA	Ongoing	New & Existing
11	Complete the ongoing updates of the Comprehensive Emergency Management Plans.	10	Local plans & Regulations	All Hazards	Medium	Low	Municipal Budget	Municipality w/ support from PEMA	Ongoing	New & Existing
12	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.	11	All Categories	All Hazards	Medium	Low	Municipal Budget	Municipality w/ support from surrounding municipalities and County	Ongoing	New & Existing
13	Develop & maintain capabilities to process FEMA/PEMA paperwork after disasters; qualified damage assessment personnel – Improve post disaster capabilities – Damage assessment; FEMA/PEMA paperwork compilation, submissions, record keeping.	12	Structure & Infrastructure	All Hazards	Low	Medium	Municipal Budget	Municipality w/ support from County, PEMA, FEMA	Short-term	N/A

	Mitigation Action	Mitigation Action Category	Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
14	Work with regional agencies (i.e. County and PEMA) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	13	Structure & Infrastructure	All Hazards	Medium	Medium	Municipal Budget, FEMA HMA grant programs	Municipality w/ support from County, PEMA	Short-, long- term (depending on funding)	N/A

#### Notes:

#### **Estimated Costs:**

- Where actual project costs have been reasonable estimated: Low = < \$10,000; Medium = \$10,000 to \$100,000; High = > \$100,000; - Where actual project costs cannot reasonably be established at this time:

**Low** = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.

**Medium** = Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.

**High** = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

#### Potential Funding (FEMA HMA):

- **FMA** = Flood Mitigation Assistance Grant Program
- **HMGP** = Hazard Mitigation Grant Program
- **HSGP** = Homeland Security Grant Program
- **EMPG** = Emergency Management Performance Grant

#### Implementation Schedule:

- **Short Term** = 1 to 5 years
- **Long Term** = 5 years or greater
- **DOF** = Depending on Funding

#### Applies to New and/or Existing Structures:

- **N/A** = Not Applicable