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Plan of Contingency Hydrometeorological

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1. INTRODUCTION

The city of La Plata and Greater La Plata present a notorious vulnerability to severe hydrometeorological events, which is reflected in the impact they produce on the quality of life of its inhabitants, damage to public and private space assets.

For adequate Comprehensive Disaster Risk Management in the District of La Plata, it is necessary and a priority to establish guidelines for Emergency Management, whether of Natural or Technological origin. This General Emergency Management Plan -established in early 2014- has the following objectives:

General objective:

- Recognize threats of natural origin such as those caused by the activity of human beings (technological).

Specific objectives:

- Identify the actors and sectors involved in emergency management.
- Establish roles and functions for emergency management.
- Deepen coordination strategies between municipal, provincial and national organizations involved in crisis management actions (warning/alarm and response) and rehabilitation in the event of an adverse event.
- Promote prevention and community preparedness activities.
- Indicate to the population the actions to take

A Contingency Plan is a set of specific procedures that present a strategic and operational structure that contribute to controlling an emergency situation and minimizing its negative consequences.

The Contingency Plan integrates the General Emergency Management Plan which, as its name indicates, is made up of the set of actions that must be carried out during the materialization of the threat and also after it. And thanks to them it will be possible to reduce and end the negative effects of
threat.

The Contingency Plan proposes a series of pre-established procedures for coordination, alert, mobilization and response to the forecast or materialization of a threat for which there are defined impact scenarios. These procedures are alternatives to the normal operation of the Emergency Services, when any of their usual functions are affected by a contingency.

This type of planning tends to guarantee the continuity of the population's functioning in the face of any eventuality. A Contingency Plan contains technical aspects and specific information, the preparation of which requires agreements that must involve the entire community, under the guidance and coordination of the municipal authorities.

The Contingency Plan must be dynamic and must allow the inclusion of alternatives to new incidents that may occur over time. Therefore, it must be updated and reviewed periodically and must be widely disseminated, for the knowledge of the entire community.

And finally, the Recovery Plan that includes the tasks that must be carried out after the threat materializes with the clear objective of recovering the state in which things were before the threat became real.

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In short, in Comprehensive Disaster Risk Management, the following plans:

- **General Emergency Management Plan:** it is a preparation program, which is carried out systematically before the threat (natural or anthropogenic) and which considers the analysis and management of the causal factors of disasters, which includes the reduction the degree of exposure to hazards, reducing the vulnerability of people and property, sound management of land and the environment, and improving preparedness for adverse events.

- **Contingency Plan:** is applied once the threat is predicted or materialized, with the objective of allowing timely, effective and appropriate responses to such events and situations with the purpose of saving lives, reducing health impacts, and ensuring public safety. and meet the basic subsistence needs of the affected population.

- **Recovery Plan:** measures that are applied once the threat has been controlled. Recovery includes the restoration and improvement, where necessary, of the schools, facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.

2. LIST OF THREATS

For the purposes of this Plan, all hydrometeorological threats that represent a risk to the population and their property, cause damage to basic infrastructure or interrupt essential services for the community will be considered, which can be classified into the following types, individually. or combined, which makes it necessary to address them from a multi-threat perspective:

- Torrential rain • Thunderstorms • Strong winds
- Floods (due to precipitation "in situ" or due to runoff, flooding or overflowing of channels, caused or enhanced by: precipitation and/or persistence of southeast wind)
- Tornadoes
- Cold and heat waves • Hail and snowfall • Persistent Southeast Wind
- Fog

3. GENERALITIES

The area of application of the procedures of this Contingency Plan is the ejido of the Municipality of the city of La Plata.

The characteristics of the Municipality, the existing resources and the Legal Framework are detailed in the Annexes of the General Emergency Management Plan.

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4. PHASES IN HYDROMETEOROLOGICAL EMERGENCY MANAGEMENT

An adequate and efficient Hydrometeorological and Environmental Surveillance System (SiViHMA) is the main tool for adequate Disaster Risk Reduction, since it has the necessary capabilities to generate and disseminate timely and significant information, reducing the economic and material impact, and the loss of lives.

Within Hydrometeorological Emergency Management, as part of the Comprehensive Disaster Risk Management, we find the following phases or stages:

PHASE I: Permanent State of Surveillance of Identified Threats (SURVEILLANCE)
PHASE II: Predicted or Materialized Threat (WARNING/ALARM)
PHASE III: During Threat Materialization (RESPONSE)
PHASE IV: Threat Controlled (RECOVERY)

5. RISK OF IMPACT DUE TO HYDROMETEOROLOGICAL THREAT AND LEVELS OF EMERGENCY

They are defined for the purposes that the **Secretary of Security** considers the situation according to the intensity, duration and/or type of threat, in order to establish actions according to the evolution of the event.

This information will be available in a timely manner, in order to allow individuals, communities and organizations at risk of threat to prepare and act appropriately and in sufficient time to reduce the possibility of loss or damage. damage.

RISK OF HYDROMETEOROLOGICAL IMPACT	
Green	No risk or low impact
Hydrometeorological situation	No predicted or observed risk
Notices to the population	Routine forecast
Suggested action for the population	No specific actions to take
Emergency level	Level I
Description	Conventional emergency situation that is resolved with normal or available means of coverage, without affecting the lives of people, property or the environment.

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RISK OF HYDROMETEOROLOGICAL IMPACT	
YELLOW	RISK OF MILD IMPACT
Hydrometeorological situation	Mild to moderate impact event, planned or developing
Notices to the population	Surveillance Notice by type of event
Suggested action to Population	Be attentive to forecast updates and Civil Defense recommendations
EMERGENCY LEVEL LEVEL II	
Description	Conventional emergency situation that is resolved with the available intervention means of coverage, but due to its magnitude it affects the lives of people, property and/or damages the environment. The implementation of minimum protection measures for people, property or the environment is required.

RISK OF HYDROMETEOROLOGICAL IMPACT	
ORANGE	MODERATE IMPACT RISK
Hydrometeorological situation	Moderate to high impact event, planned or in progress
Notices to the population	Warning by event type
Suggested action to Population	Be prepared
EMERGENCY LEVEL Level III	
Description	Emergency situation that, due to its magnitude or damage caused, makes it necessary to summon the COEM

RISK OF HYDROMETEOROLOGICAL IMPACT	
RED	HIGH IMPACT RISK
Hydrometeorological situation	High impact event (SEVERE), planned or in progress
Notices to the population	ALARM
Suggested action to Population	Take immediate action
EMERGENCY LEVEL LEVEL III	
Description	Emergency situation that, due to its magnitude or damage caused, makes it necessary to summon the COEM
EMERGENCY LEVEL LEVEL IV	
Description	Emergency situation that, due to its magnitude, exceeds local resources and requires provincial and national help.

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6. THRESHOLDS OF RISK LEVEL OF IMPACT DUE TO HYDROMETEOROLOGICAL THREAT

The Impact Risk Level thresholds for each of the Hydrometeorological Threats identified for the City of La Plata are described below.
The suggested actions for the population are also described.

The routine forecasts issued by the Directorate of Hydrometeorology are accompanied by these thresholds marked on a “TRAFFIC LIGHT”, for a practical and quick visualization of the predicted hydrometeorological conditions.

SITUATION REFERENCE RISKY		LEVEL GREEN NORMAL	LEVEL YELLOW SLIGHT RISK	LEVEL ORANGE RISK MODERATE TO HIGH	RED LEVEL HIGH RISK
Suggested action to Population		No actions to take	Be attentive	Be prepared	Take immediate action
EXPECTED IMPACT		VERY LOW	LOW	MEDIUM TO HIGH	HIGH OR VERY HIGH
TAKE ACTION Yes SUGGESTED ACE	ALL KINDS OF TIME SEVERE	I don't know Expect no noticeable impact, but there may be some minor issues, and there may be some disruption to outdoor events	Stay tuned for the latest weather forecasts . Some minor delays should be expected due to a traffic slowdown. Outdoor events may be interrupted or cancelled.	Be prepared, take precautions. Ensure access to the latest forecasts. Be prepared for some disruptions to normal daily routines. Only travel if you are well prepared and allow for longer travel times.	Take Take precautions and don't let your guard down. Follow instructions and advice given by authorities in all circumstances. Be sure to access the latest forecasts. Expect a significant disruption to normal daily routines. Avoid leaving your home and any other non-essential movement.
	PRECIPITATION IS	Some flooding os in areas you usually go down flooded areas, on dirt streets, sports or recreational fields. There is no interruption is in the normal flow of traffic: it is only advisable to drive with caution in areas affected by wet pavement or the formation of puddles	Flooding located in low areas, dirt streets, sports or recreational fields. Puddles and flooding in known hotspots, as probably also from a very small number of homes and businesses in identified conflict zones. Increase in travel times due to street interruption due to water accumulation on the sidewalk. Drive according to the	Some flooding in homes, businesses and transportation nodes or roads. Interruption in essential services: gas, electricity, water supply, telecommunications is. Some evacuations may be required. Be prepared to protect your life and property	Widespread flooding of homes. Interruption of transportation services and traffic routes. Severe interruption of essential services: gas, electricity, water, telecommunications is. Significant disruption of communities. Mandatory evacuation, significant risk of life. Take steps to protect yourself and follow the advice of emergency services.

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	WIND	Some unsecured objects or some branches they can fall. crosswinds in accesses and highways.	Some branches or trees are knocked down. Probable localized interruption of streets due to this cause. Localized problems with tall vehicles on roads or highways: drive carefully Take into account possible objects that can be blown by the wind.	Widespread damage to trees and other light objects, signage, tiles detached from roofs. Some structural damage minors is possible. Risk of injury from objects blown by the wind. Possibility of some localized interruptions in streets, routes and electrical energy.	Widespread structural damage: roofs ripped off, mobile homes overturned, power lines downed. Risks to personal safety from windblown objects. Widespread and/or prolonged interruptions to electrical energy. Expect widespread disruption to the transportation system due to, for example, blockages due to fallen trees on streets and routes.
	FOG	Some non-persistent and localized fogs will be observed, affecting zones limited geographic areas. Caution when driving in Affected areas: There may be some very limited impact on transport on roads and highways.	Dense fog widely dispersed but not persistent for more than two days. Flights affected. Caution when driving in affected areas. Delays.	Widespread and dense fog affecting all of Greater La Plata, including the main ports and/or airports. The fog is persistent and can last all day and for several consecutive days. Be prepared for driving disruptions: Be prepared for increased travel times. Be prepared for delays at ports and airports.	Widespread and dense fog affecting all of Greater La Plata, including the main ports and/or airports. The fog is persistent and can last all day and for several consecutive days. Be prepared for serious driving disruption: Be prepared for increased or suspended travel times, as may occur at ports and airports.
	COLD HOT	No health effects	Heat/cold waves can be dangerous, especially for babies and young children, people over 65	Heat waves can be dangerous, especially for babies and young children, people over 65 years of age, or those with	Exceptional cases of heat/cold waves. They can affect all healthy people, and not just risk groups. Risk of

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REFERENCE OF SITUATION RISKY	GREEN LEVEL: NORMAL	LEVEL YELLOW: MILD	ORANGE LEVEL: MODERATE	RED LEVEL: HIGH
Report	Forecast Routine every 24 hours	Forecast Routine + Notice of Surveillance	Forecast Routine + Warning	Forecast Routine + ALARM
		Surveillance start Reports updated every 2 hours	Surveillance start Reports updated every 1 hour	Warning Permanent update of Reports
Description	No risk of severe weather	Some specific activities may be affected. Puddles or slight waterlogging	Call for attention due to noticeable and persistent flooding or flooding. Wind and probable non-damaging hail	Severe weather: unusual and dangerous events, heavy rainfall, wind and possible damaging hail
Precipitation Observed in 1 h	Up to 20 mm/h	20 to 30 mm/h	30 to 80 mm/h	More than 80 mm/h
Accumulated precipitation in 24 hours estimated by models	0 to 30mm	30 to 80mm	80 to 120 mm	More than 120 mm
Accumulated precipitation in 48 h estimated by models	0 to 60mm	60 to 120 mm	120 to 200 mm	More than 200 mm
Wind/Gusts (Observed or predicted)	0 to 40 km/h	40 to 70 km/h	70 to 120 km/h	More than 120 km/h
Persistence of the Southeast wind (Observed or predicted)	0 to 30 km/h HE Without precipitation / weak Persistence less than 24 hours	30 to 50 km/h HE Light to moderate precipitation Persistence less than 24 hours	30 to 50 km/h HE Moderate to heavy rainfall Persistence greater than 24 hours	> 50 km/h SE Moderate to heavy rainfall Persistence greater than 24 hours
Heat wave (Persistence of 3 days or more)	Min: < 20°, Max: < 30°	Min: 21° to 25°, Max: 30° to 35°	Min: 24° to 28°, Max: 35° to 38°	Min: > 26°, Max: > 38°
Cold wave (Persistence of 3 days or more)	Min: > 5° Max > 12°	Min: 2° to 5°, Max 10° to 12°	Min: 0° to 2°, Max 6° to 10°	Min: < 0°, Max < 8°
Mists Persistence of more than 12 hours	VISIBILITY GREATER THAN 800 m	VISIBILITY BETWEEN 300 AND 800 m	VISIBILITY BETWEEN 100 AND 300 m	VISIBILITY LESS THAN 100 m

CLASSIFICATION OF PRECIPITATION EVENTS

CLASSIFICATION OF THE PRECIPITATION (Intensity observed in 10 min)	WEAK Less than 2mm/h	MODERATE Between 2.1 and 15 mm/h	STRONG Between 15.1mm and 30mm	VERY STRONG Between 30.1 and 60 mm/h	TORRENTIAL More than 60mm/h

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WARNINGS and ALARMS correspond to events related to ORANGE and RED color level thresholds respectively.

7. DESCRIPTION OF THE TRAFFIC LIGHT (COLOR ASSOCIATED WITH THE RISK OF IMPACT HYDROMETEOROLOGICAL AND SUGGESTED ACTIONS)

- **GREEN:** No special attention is required regarding the conditions observed or predicted hydrometeorological conditions.

- **YELLOW:** observed or predicted hydrometeorological conditions with potential risk. The predicted phenomena are not uncommon, but attention must be paid if activities exposed to meteorological or hydrological risks are carried out. It is recommended to be alert to any avoidable risks.

- **ORANGE:** unusual hydrometeorological conditions, observed or predicted. Some property damage or accidents are likely to occur. Be aware of risks that may be unavoidable. Follow the advice given by the authorities.

- **RED:** very dangerous hydrometeorological conditions, observed or predicted, with exceptionally intense hydrometeorological phenomena. There are great risks of property and personal injury, often over large areas. Extreme precautions must be taken. The recommendations and orders of the authorities must be followed in all circumstances, being prepared for extraordinary measures.

8. DESCRIPTION OF THE REPORTS PREPARED BY THE DIRECTORATE OF HYDROMETEOROLOGY

The following protocols for the preparation and issuance of routine or extraordinary hydrometeorological information have been established, which make up the System of
Warnings and Hydrometeorological Alert from the SiViHMA of the city of La Plata

- **Daily RRSS forecast:** forecast for the next 24 hours, which is published on the MLP's social networks (FB, Twitter) and the media that request and/or replicate it.

- **Routine forecast:** 7-day weather forecast that is issued daily by email to municipal organizations with responsibility for Risk Management. • **Update:** at any time, in the event of a change in the planned situation or observed

- **SURVEILLANCE NOTICE:** report that is issued in the event of the probability of a hydrometeorological threat materializing in the next 12 to 24 hours, or in the event of a situation of slight risk or low impact. It is equivalent to the SMN ALERT.

Characteristics:

  - It will be accompanied by a description of the event that motivates it: strong or torrential precipitation, storms, strong and/or severe storms, hail, gusts of wind, etc.

  - Validity: issued for a minimum validity period of 12 hours and a maximum validity of 24 hours. In extraordinary situations this period may be minor.
  - Update: mandatory in even hours (every 2 hours)

- **WARNING:** report that is issued in the event of the imminent materialization of a hydrometeorological threat (in the next 2 to 4 hours), implies a situation of

moderate or high risk and high impact, or in a rapidly developing or “surprising” situation. It is equivalent to the SMN SHORT TERM NOTICE.

Characteristics:

- It will be accompanied by a description of the event that motivates it: strong or torrential precipitation, storms, strong and/or severe storms, hail, gusts of wind, etc.
- Validity: issued for a maximum validity period of 4 hours.
- Update: mandatory every 1 hour.

- **ALARM:** extraordinary that is issued due to the imminent occurrence or materialization of an exceptionally intense hydrometeorological event. It involves a situation of extreme risk and high or very high impact, and the taking of extraordinary measures. **It has no equivalence** in the SMN.

Characteristics:

- It will be accompanied by a description of the event that motivates it: strong or torrential precipitation, storms, strong and/or severe storms, hail, gusts of wind, etc.; and the action to be taken: • Validity: it is issued for a maximum validity period of 4 hours.
- Update: mandatory every 30 min or less

9. PROCEDURES BY PHASE

PHASE I: Permanent State of Surveillance (Observation/Alert) of the identified hydrometeorological threats, through the Network of Hydrometeorological Stations. It consists of two operational components:

- **Observation:** collection and management of hydrometeorological variables, for the preparation of databases for subsequent analysis and the creation of knowledge. It focuses on the preparation phase of Comprehensive Disaster Risk Management.

- **Alert:** State of permanent wakefulness that allows the identification of situations and circumstances that could evolve into potential dangers capable of generating damage, through permanent surveillance and monitoring of the natural threats identified for the City of La Plata stated in the General Management Plan. of Emergencies of the City of La Plata

The main hydrometeorological threats identified for the City of La Plata are:

- Precipitation (water or snow)
- Hail
- Frontal systems
- Cold and heat waves
- Severe storms
- Persistence of the southeast wind and/or flooding of the Río de la Plata
- Southeast
- Urban floods
- Atmospheric electrical activity
- Lines of instability
- Gusts and/or Wind Storms
- Tornadoes and/or waterspouts
- Extratropical cyclones

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- Raising the level of groundwater/water tables
- Drought
- Forest fires

The Hydrometeorology Directorate prepares routine forecasts every 24 hours that are distributed by email to municipal organizations with responsibility for Risk Management and are published on social networks and the media.

The Alert, like the Observation, focuses on the preparation phase of Comprehensive Disaster Risk Management (GRID).

The operational sequence is described below:

SURVEILLANCE (Observation/Alert)
Normal or Very Low Impact Situation
(Routine forecasts)

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EMERGENCY LEVEL I

Conventional contingency situation that is resolved with normal or available means of coverage, without affecting the lives of people, property or the environment.

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Security Secretary
Inform and coordinate with:

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Undersecretary of Security, Undersecretary of Risk Management, Directorate of Civil Defense, Directorate of Hydrometeorology, Directorate of Monitoring Systems, Directorate of Security in Public Buildings, Directorate of Community Participation, General Directorate of Victim Assistance.

Undersecretary of Coexistence and Citizen Control: Directorate of Zoonoses, Directorate of Traffic Control

Undersecretary of Communications

Secretary of Public Spaces and Environmental Management: Undersecretary of Public Spaces and Environmental Management, Directorate of Green Spaces and Public Trees, Undersecretary of Environmental Management

Secretary of Government: Undersecretary of Coordination of Community Centers

Secretary of Public Works and Services: Undersecretary of Public Works, General Directorate of Public Works, Directorate of Hydraulics, Undersecretary of Public Services, Operational Directorate of Urban Cleaning, Directorate of Urban Maintenance, Directorate of Lighting

Secretary of Social Development: Undersecretary of Development and Social Welfare, Directorate of Social Volunteering, Directorate of Direct Social Action

Secretary of Health: Undersecretary of Health and Social Medicine, Undersecretary of Medical Emergencies

Secretary of Urban Planning and Economic Development: Undersecretary of Urban Planning, Directorate of Particular Works, Undersecretary of Urban Mobility, General Directorate of Transit and Transportation

Secretary of Culture and Education.

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Suggested Action for the Population:
NO ACTIONS TO TAKE

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PHASE II (or Pre-emergence phase)

This phase begins when the Hydrometeorology Directorate Observes or Predicts the materialization of a Threat (through a WATCH NOTICE, a WARNING or an ALARM).

As a consequence of the start of this Phase, the services and organizations concerned by this Plan will be notified. In addition, meteorological, hydrological and historical monitoring and analysis will be intensified to allow decision-making supported by data.

Phase II (Pre-emergency) is activated to:

- Allow agencies to respond and address risk and emergencies
- Allow the population to activate pre-established procedures to reduce and if it is possible to eliminate damage to people and property

The type and level of Warning (SURVEILLANCE NOTICE, WARNING or ALARM) will depend on:

- The nature of the threatening situation:
- Origin
- Type •
Speed of materialization
- Predictable intensity
- Territorial extension of its influence
- Damage generation potential

It must be

- Intensify surveillance and hydrometeorological monitoring.
- Estimate damages.
- Establish preventive protection measures.
- Analyze previous situations.
- Inform the population and the social media.
- Provide for the possible mobilization of necessary means and resources.

Based on what was expressed above, but fundamentally in consideration of the “Expected Impact” and the “Emergency Level”, the Secretary of Security must make the decision to convene the COEM.

PHASE II: Surveillance Notice

SURVEILLANCE NOTICE
Slight Risk or Low Impact Situation
(Routine forecasts + update every 2 hours)

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EMERGENCY LEVEL II

Conventional emergency situation that is resolved with the available intervention means of coverage, but due to its magnitude it affects the lives of people, property and/or damages the environment. The implementation of personal protection measures is required.

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Security Secretariat Informs and coordinates with:

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Undersecretary of Security, Undersecretary of Risk Management, Directorate of Civil Defense, Directorate of Hydrometeorology, Directorate of Monitoring Systems, Directorate of Security in Public Buildings, Directorate of Community Participation,
General Directorate of Victim Assistance.

Undersecretary of Coexistence and Citizen Control: Directorate of Zoonoses, Directorate of Traffic Control

Undersecretary of Communications

Secretary of Public Spaces and Environmental Management: Undersecretary of Public Spaces and Environmental Management, Directorate of Green Spaces and Public Trees, Undersecretary of Environmental Management

Secretary of Government: Undersecretary of Coordination of Community Centers

Secretary of Public Works and Services: Undersecretary of Public Works, General Directorate of Public Works, Directorate of Hydraulics, Undersecretary of Public Services, Operational Directorate of Urban Cleaning, Directorate of Urban Maintenance, Directorate of Lighting

Secretary of Social Development: Undersecretary of Development and Social Welfare, Directorate of Social Volunteering, Directorate of Direct Social Action

Secretary of Health: Undersecretary of Health and Social Medicine, Undersecretary of Medical Emergencies

Secretary of Urban Planning and Economic Development: Undersecretary of Urban Planning, Directorate of Particular Works, Undersecretary of Urban Mobility, General Directorate of Transit and Transportation

Secretary of Culture and Education.

Suggested Action for the Population:
BE ATTENTIVE

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PHASE II: Warning

WARNING
Moderate Risk Situation Medium Impact
(Routine forecasts + hourly update)

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EMERGENCY LEVEL III
Emergency situation that, due to its magnitude or damage caused, makes it necessary to summon the COEM

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COEM Informs and coordinates with:

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Undersecretary of Security, Undersecretary of Risk Management, Directorate of Civil Defense, Directorate of Hydrometeorology, Directorate of Monitoring Systems, Directorate of Security in Public Buildings, Directorate of Community Participation, General Directorate of Victim Assistance.

Undersecretary of Coexistence and Citizen Control: Directorate of Zoonoses, Directorate of Traffic Control

Undersecretary of Communications

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Secretary of Health: Undersecretary of Health and Social Medicine, Undersecretary of Medical Emergencies

Secretary of Urban Planning and Economic Development: Undersecretary of Urban Planning, Directorate of Particular Works, Undersecretary of Urban Mobility, General Directorate of Transit and Transportation

Secretary of Culture and Education.

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Non-Municipal Emergency Services: Superintendency of Accident Safety of the Province of Buenos Aires, Firefighters of the Province of Buenos Aires La Plata Barracks, Volunteer Firefighters of El Peligro, Directorate of Risk Management of the Province of Buenos Aires, Directorate of Civil Defense of the Province of Buenos Aires, Argentine National Army (Mechanized Infantry Regiment 7, Communications Regiment 601), Argentine Red Cross (La Plata branch), Scout La Plata, CEPA (La Plata branch) and other associations linked to the emergency.

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Suggested Action for the Population:
BE PREPARED

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PHASE II: Alarm

ALARM
High Risk Situation
High impact
(Routine forecasts + max update every 30 min)

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EMERGENCY LEVEL III
Emergency situation that, due to its magnitude or damage caused, makes it necessary to summon the COEM

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COEM
Inform and coordinate with:

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Undersecretary of Security, Undersecretary of Risk Management, Directorate of Civil Defense, Directorate of Hydrometeorology, Directorate of Monitoring Systems, Directorate of Security in Public Buildings, Directorate of Community Participation, General Directorate of Victim Assistance.

Undersecretary of Coexistence and Citizen Control: Directorate of Zoonoses, Directorate of Traffic Control

Undersecretary of Communications

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Suggested Action for the Population:
TAKE IMMEDIATE ACTION

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PHASE III: During Threat Materialization (RESPONSE)

If a threat materializes, in the event that this situation is included in Emergency Level III or IV, the COEM will be summoned according to the established protocols.

Once the COEM is established, the coordination and articulation with municipal, provincial and national government institutions and organizations and service companies, private companies; non-governmental and civil society organizations that have the necessary resources to face emergencies will be in charge of the Municipal Mayor or his replacement.

In the event that the Hydrometeorology Directorate issues a **WARNING** because predicts or observes an event of moderate impact **(ORANGE),** official notice of the suggested actions will be given to the population through the Neighborhood, Communal or Municipal Representative and through all available media. If the COEM considers it appropriate to carry out preventive evacuation type actions, it will have the means or tools to do so, and the notification, liaison and coordination tasks will be the responsibility of the Municipal Representative and Communal or Neighborhood representative who will follow the respective protocols (e.g. Protocol Barrial), indicating the agreed meeting points to be later transferred to shelters in safe areas, if applicable.

In the event that the Hydrometeorology Directorate issues an **ALARM** because a high impact event **(RED) is predicted or observed,** official notice will be given of the immediate actions to be taken by the population through the Neighborhood, Communal or Municipal Representative and by all available media. If the COEM considers it appropriate to carry out mandatory evacuation type actions, it will have the means or tools to do so, and the liaison and coordination tasks will be the responsibility of the Municipal Representative and will have the collaboration of the Communal or Neighborhood representative who will follow the respective protocols (e.g. Neighborhood Protocol).

Based on the advice of the Hydrometeorology Directorate and once the Threat is controlled, the COEM will officially determine the cessation of the event to begin the RECOVERY tasks.

PHASE IV: Threat Controlled (RECOVERY)

The COEM will continue to be active, maintaining the specific activities of each municipal agency related to the type of hydrometeorological event recorded (e.g.: in the event of a flood, maintain monitoring of the urban drainage system until the end of the emergency).

Once the threat is controlled, through the Neighborhood, Communal or Municipal Representative, the evacuated population will be prepared for an orderly return to their homes, providing elements of humanitarian aid for the reestablishment of their normal activities in acceptable conditions, while the basic sanitation activities, epidemiological surveillance actions and disease control.

Simultaneously, recovery work, debris removal, activation of services, etc. will be carried out.

The state of emergency does not end when the hydrometeorological event that caused it ends, but rather when the activities of the affected population return to normal.

Once this happens, a detailed report of the contingency or emergency attended to will be prepared that includes damages, work performed, actions to be developed and recommendations.

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10. INDICATIONS FOR THE POPULATION

PERMANENTLY AND PREVENTIVELY

An extreme hydrometorological event (heavy rain, flash flood, wind storm, etc.) can occur at any time. Therefore, it is important to know some **self-protection** guidelines that will help you make decisions that can benefit both your safety and that of your family, especially if you live in an area with a history of flooding.

1) Protect your personal documents: place your documents, birth certificates, medical records, passports, insurance policies, deeds and any other valuable documents in an airtight bag (Ziploc type) and in a safe place.
It is also a good idea to have updated photos of your family members and some cash.

2) Create a family emergency plan: teach them how to act in case a contingency finds them separated. Establish a communication plan that contains a family emergency contact (preferably out of town) that all members can call, and the emergency telephone numbers: • 100 FIREFIGHTERS

- 103 CIVIL DEFENSE
- 107 AMBULANCE
- 911 SECURITY.

3) Prepare a safety kit with basic elements such as bottled water, canned food, flashlight, batteries, battery-powered radio, external cell phone battery, etc. first aid items and , medications your family uses.
4) Prepare in a waterproof bag at least one change of underwear, clothing basic and some coat.
5) Recognize a safe place in your house or remember it at a nearby neighbor's and Show it to your family so they can go if necessary. • In case of heavy rain or flooding: the safe place must be at height: plant height, ceiling, etc.
   - In case of strong winds or storms: the safe place should preferably be made of material and without windows to the outside. A material bathroom is a good place.
   - In case of electrical storm: a place of material, and away from doors and windows. Avoid contact with running water pipes and telephone and power lines

ACTIONS TO FOLLOW IN CASE OF HEAVY RAINS OR FLOOD

1) A flood is the most common natural threat in the city of La Plata and in the Argentine Republic, and its effects can be local, affecting only a neighborhood (or sector of it) or a locality, or be larger and affect several basins. and/or districts.
2) Floods can be sudden (develop at high speed and in a few minutes and sometimes without local intense rain) or slower, over a few days.

3) If you receive a “Precipitation Watch / Strong Storm Warning”, check your home's pipes and drains.
4) If you live in a risk area (in a low-lying area or on the banks of a stream) be aware of the risks of flooding, even without prior warning.
5) Don't take out the trash. Remove objects that could be dragged by water from the outside of your home.
6) Be informed of the weather forecast. Follow the recommendations of the municipal authorities and Civil Defense. Keep calm.
7) Pay special attention to the vulnerable population: children, the elderly and people with disabilities. Keep pets in protected places.
8) Avoid going out on public roads. Stay in place, if it is safe.

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9) Be prepared to go to the previously determined safe place at home or in
that of a neighbor.
10)In case of flooding, consider turning off the electricity, gas and water supply to your home.
home.
11)Avoid walking in flooded areas or on paths that have flowing water. A stream of water 15
centimeters high can knock it over. If there is no current, carry a stick to avoid holes and ensure
the firmness of the ground in front of you.
12)Avoid traveling with your vehicle. If you do so, do so at low speed to avoid generating waves. If
the water level exceeds the middle of the wheels, abandon the car and go to higher ground. If
water covers the wheels, the current can drag your vehicle, even if it is a 4x4 or a truck.

13) If evacuation is necessary, the authorities will accompany this process, attending to the transfer
and reception of those who need it, arranging preventive surveillance in the affected areas.

ACTIONS TO FOLLOW IN CASE OF STRONG WINDS, STORM OR TORNADO

1) A tornado can develop quickly and without warning. Our city is located within the so-called
"tornado alley" of Argentina, the second most active region for tornadoes after the United States.

2) If you receive a "High Wind / Temporary Surveillance Notice", check the roofs of your home and
try to secure the parts that could blow away (tiles, sheets or others).
3) Remove any object outside your home that could be dragged
by the wind. Don't take out the trash.
4) Close and secure windows and doors.
5) Pay special attention to the vulnerable population: children, the elderly and people with disabilities.
Keep pets in protected places.
6) Stay in the place, if it is safe. Avoid going out on public roads, avoid unnecessary circulation of
vehicles and people, especially in urban centers.
Always enter some physical place with adequate shelter (protection).
7) If you travel, do so attentively and with a panoramic view of what is happening around you (fallen
cables, branches or objects projected by the action of the wind). Do not stop under trees or any
protruding elements attached to buildings (signs, awnings, canopies, etc.)

8) Consider turning off the electricity, gas and water supply to your home.
9) Be informed of the weather forecast. Follow the recommendations of the municipal authorities
and Civil Defense. Keep calm.
10)Be prepared to go to the previously determined safe place at home or in
that of a neighbor.
11) If evacuation is necessary, the authorities will accompany this process, attending to the transfer
and reception of those who need it, arranging preventive surveillance in the affected areas.

ACTIONS TO TAKE IN CASE OF A LIGHTNING STORM/LIGHTNING

1) By definition, every storm is accompanied by lightning and thunder. That is why unless they are
strong or severe, the DHM-LP does not issue a "Thunderstorm/Lightning Watch Notice."

2) Argentina is in one of the regions on the planet with the greatest number of electrical storms. In
the city of La Plata, a frequency of between 40 and 60 days with storms per year is observed,
and between 20 and 30 lightning strikes/km2 per year, being one of the natural threats with the
greatest potential for damage to lives and property.
3) Because it is not possible to predict where lightning will strike, the risk to people and property is
high, and increases with exposure to them.
4) You must remember that lightning can strike up to 20 km away from an area of
rains or storms... they can even do it in clear skies.

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5) Always keep in mind the 30/30 RULE: if less than 30 seconds pass between seeing lightning and hearing thunder, seek shelter. It is safe to return to your outdoor activities 30 minutes after you hear the last thunder.

6) A suitable shelter is a building or vehicle that has a metal roof.
7) Avoid sheltering from the rain under a tall, isolated tree in an open area, as it will act as a natural lightning rod.

8) Avoid staying in open fields, the beach, a boat in the water or hills; sheds or any metal structure in open areas.
9) At home, do not use the shower or kitchen taps, since the pipes can conduct electricity.
10)Do not use corded phones. It is safer to use cell phones and cordless phones inside your house.
11)Stay away from metal objects: bicycles, motorcycles, agricultural machinery and golf clubs.
12) It is important that you know that any shoes with rubber soles or carpets rubber do NOT provide any type of protection against rays.
13) Disconnect electronic items (TV, PC, appliances, etc.), since voltage variations caused by lightning can damage these equipment.
14) The victim of lightning does not have any electrical charge and must receive help immediately.

ACTIONS TO FOLLOW IN CASE OF A COLD WAVE

1) Keep in mind that between the months of May and August, the city of La Plata may be affected by cold waves, a period of very low temperatures lasting more than 3 days. In these events, the DHM-LP can issue a “Low Temperature Surveillance Notice”, 2) Always remember to condition your home at the beginning of the cold season: to the extent possible, insulate and cover
cracks in the walls, apply weather stripping on doors and windows.

3) AVOID THE USE OF BRAZILIERS OR THE KITCHEN OVEN OR BURNERS FOR HEATING: they generate carbon monoxide, a silent and invisible killer, the main cause of deaths in winter.

4) Check your home's heating system. Remember that infrared gas or kerosene heaters generate carbon monoxide, so it is important to maintain good ventilation if you do not use balanced draft heaters.

5) Do the same with your vehicle: check the condition of the battery and that its terminals are clean; that the starting system is in perfect condition, remember to use antifreeze; make sure the heater and defroster work properly; Inspect the exhaust system for breaks or leaks to prevent carbon monoxide from entering the cabin.

6) If you leave your house, put on several layers of loose clothing, preferably wool. Outer garments must be closed-knit and waterproof. Wear mittens or gloves and a hat. Cover your neck and mouth with a scarf.
7) Eat regularly and drink plenty of fluids. Avoid caffeine and alcohol.
8) Watch for signs of hypothermia, such as uncontrollable shivering or shaking, disorientation, slurred speech, drowsiness, and exhaustion. If this occurs and if the person presenting these symptoms is conscious, take him to a warm place, remove wet clothing, warm his chest first and give him hot non-alcoholic drinks to drink. Have him seen by a doctor as soon as possible.

ACTIONS TO FOLLOW IN CASE OF A HEAT WAVE

1) Keep in mind that between the months of November and March, the city of La Plata may be affected by heat waves, a period of high temperatures lasting more than 3 days. In these events, the DHM-LP can issue a “High Temperature Surveillance Notice”,

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2) Always remember to condition your home at the beginning of the warm season: cover the windows that receive sunlight in the morning or afternoon with half-shade, curtains, screens, awnings or blinds. (Awnings or blinds reduce the heat entering a home by up to 80%. If you have air conditioners, apply weather stripping on doors and windows.

3) In conditions of extreme heat and high humidity, evaporation decreases and the body has to work harder to maintain its normal temperature.

4) Most heat disorders occur when a person has been exposed to excessive heat or has exercised too much for their age or physical condition, with the elderly, young children, the sick, and obese people being the population with heat disorders. higher risk.

5) Stay indoors as much as possible and limit sun exposure.

6) Eat balanced, light meals at regular intervals. Drink plenty of water. People with heart, kidney, or liver disease and those on a fluid-restrictive diet or who have fluid retention problems should consult their doctor before increasing fluid intake.

7) Limit the intake of alcoholic beverages.

8) Dress in loose, lightweight, light-colored clothing that covers as much skin as

9) possible. The same type of dark colors increases the temperature by more than 15 degrees. Protect your face and head with a wide-brimmed hat.

10)Maintain communication with relatives, friends and neighbors who do not have air conditioned and spend a lot of time alone.

11)Never leave children or pets alone in closed vehicles.

12)Avoid physical exertion during the hottest part of the day 13)Residents in urban

areas are at greater risk of suffering the effects of a prolonged heat wave than those who reside in rural areas, since asphalt and Concrete retains heat longer and releases it gradually at night, which produces higher night temperatures (an effect called the “urban heat island effect”).

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TERMINOLOGY

Observation

Compilation and management of hydrometeorological variables, for the preparation of databases for subsequent analysis and the creation of knowledge. It focuses on the preparation phase of Comprehensive Disaster Risk Management.

Warning

Situation of probability of materialization of a threat that can produce social dysfunctions or environmental degradation, temporarily reducing the quality of life of the inhabitants.

Alarm

Situation of probability of materialization of a threat that can produce a serious interruption of the functioning of a community or society with human losses and/or significant material, economic or environmental losses, significantly reducing the quality of life of the inhabitants.

Alert

State of permanent wakefulness that allows the identification of situations and circumstances that could evolve into potential dangers capable of generating damage, through permanent surveillance and monitoring of the natural threats identified for the
City of La Plata stated in the General Emergency Management Plan of the
City of La Plata

Threat A

hazardous phenomenon, substance, human activity, or condition that can cause death, injury, or other health impacts, as well as property damage, loss of livelihoods and services, social and economic disruption, or damage. environmental.

Hydrometeorological hazard A process

or phenomenon of atmospheric, hydrological or oceanographic origin that can cause death, injury or other health impacts, as well as property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Surveillance Notice

The Hydrometeorology Directorate issues it when there are favorable conditions for the materialization of a hydrometeorological threat, but this does not necessarily have to occur. The purpose of the "Surveillance Notice" is that the population can take the minimum precautions and be attentive to the probable (or not) issuance of Warnings

Disaster A

serious disruption in the functioning of a community or society that results in a large number of deaths as well as material, economic and environmental losses and impacts that exceed the capacity of the affected community or society to cope by using of their own resources.

Risk Assessment Methodology

to determine the nature and degree of risk through the analysis of possible threats and the evaluation of existing conditions of vulnerability that together could potentially harm the exposed population, property, services and livelihoods, as well as the environment on which they depend.

Degree of Exposure The

population, properties, systems or other elements present in areas where threats exist and, therefore, are exposed to experiencing potential losses.

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Corrective Disaster Risk Management Management activities
that address and seek to correct or reduce disaster risk that already exists.

Emergency Management The
organization and management of resources and responsibilities to address all aspects of emergencies, especially preparation, response, and the initial steps of rehabilitation.

Risk Management The
systematic approach and practice of managing uncertainty to minimize potential damage and loss.

Disaster Risk Management The systematic
process of using administrative guidelines, organizations, skills and operational capabilities to implement policies and strengthen coping capacities, in order to reduce the adverse impact of natural hazards and the possibility of disaster occurrence.

Vital Facilities The physical
structures, technical facilities and major systems that are socially, economically or operationally essential to the functioning of a society or community, both under normal and extreme circumstances during an emergency.

Mitigation
The reduction or limitation of the adverse impacts of hazards and related disasters.

Observation
Compilation and management of hydrometeorological variables, for the preparation of databases for subsequent analysis and the creation of knowledge. It focuses on the preparation phase of Comprehensive Disaster Risk Management.

Disaster Risk Reduction Plan A document prepared by an authority,
a sector, an organization or a company to establish specific goals and objectives for disaster risk reduction, together with related actions to achieve the established objectives.

Contingency Planning A management
process that analyzes possible specific events or emerging situations that could impose a threat to society or the environment, and establishes advance arrangements to enable timely, effective and appropriate responses to such events and situations.

Preparation
The knowledge and capabilities developed by governments, professionals, response and recovery organizations, communities, and individuals to anticipate, respond to, and recover effectively from the impacts of likely, imminent, or current events or conditions that occur. are related to a threat

Prevention
The absolute evasion of the adverse impacts of threats and disasters
related.

Forecast An
accurate statement or statistical estimate of the possible occurrence of an event or future conditions in a specific area.

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Recovery The
restoration and improvement, where necessary, of the schools, facilities, livelihoods and living conditions of communities affected by disasters, including efforts to reduce disaster risk factors.

Disaster Risk Reduction The concept and
practice of reducing disaster risk through systematic efforts aimed at analyzing and managing the causal factors of disasters, including reducing the degree of exposure to hazards, reducing the vulnerability of population and property, sound management of lands and the environment, and improved preparedness for adverse events.

Response
The provision of emergency services and public assistance during or immediately after the occurrence of a disaster, with the purpose of saving lives, reducing health impacts, ensuring public safety and meeting the basic subsistence needs of the population. affected population.

Resilience
The ability of a system, community or society exposed to a hazard to resist, absorb, adapt and recover from its effects in a timely and effective manner, including the preservation and restoration of its basic structures and functions.

Risk The
combination of the probability of an event occurring and its negative consequences.

Acceptable Risk The
level of potential losses that a society or community considers acceptable, given its existing social, economic, political, cultural, technical and environmental conditions.

Disaster Risk The potential
losses that a disaster would cause in terms of lives, health conditions, livelihoods, goods and services, and that could occur in a particular community or society at a specific period of time in the future .

Emergency Services The set of
specialized agencies with the responsibility and specific objectives of protecting the population and property in emergency situations.

SiViHMA
The Hydrometeorological and Environmental Surveillance System is a set of capabilities necessary to generate and disseminate timely and significant information, in order to allow people, communities and organizations to prepare and act appropriately and with sufficient advance notice to reduce the possibility of changes in daily routines, losses or damages due to the probability and/or materialization of a natural and/or anthropogenic threat, and that contribute to adequate comprehensive risk management that includes the response and recovery phases.

The SiViHMA is an instance that surpasses the traditional concept of SAT (Early Warning System)

Vulnerability The
characteristics and circumstances of a community, system, or asset that make it susceptible to the harmful effects of a threat.