



GREYSTONES AREA OFFICE

FLOOD EMERGENCY PLAN

FLOOD EMERGENCY PLAN (FEP) REVISIONS LIST

The revision list below will ensure that all parties involved in the response effort will have possession of the most recent version of the plan. The revision number and date shall be placed at the lower right hand corner of each page of the amended document.

Revisions to the Flood Emergency Plan (FEP) will be forwarded to all organisations/agencies assigned responsibilities in the plan, and also all stakeholders as noted in the distribution list in Appendix K. Acknowledgement of receipt of the revised document will be required from each organisation.

FLOOD EMERGENCY RESPONSE PLAN REVISION LOG			
Version Number	Date	Details of Change	Editor/Signature
Version 1.0	22/08/2008	First Draft by Greystones Area Office	CA
Version 1.1	25/11/2008	Second Draft by Greystones Area Office	CA
Version 1.2	10/02/2009	Third Draft by Greystones Area Office	CA
Version 1.3	23/03/2009	Fourth Draft by Greystones Area Office	CA
Version 1.4	18/06/2009	Fifth Draft by Greystones Area Office	CA
Version 1.5	22/07/2009	Sixth Draft by Greystones Area Office	CA
Version ADOPTED	22/07/2009	Adopted Plan by Greystones Area Office	CA
Version REVISED	01/10/2009	Revised by Greystones Area Office	CA
Version REVISED	31/03/2010	Three Trouts history	CA

‘Post Flooding Meetings’, shall be held immediately after every flood event where the FEP is activated.

The actions undertaken by each individual organisation should be reviewed and noted during these meetings. This will assist in developing and improving the plan and assist all groups to learn from their experience.

The Local Authority is responsible for the overall maintenance (review and update) of this Flood Emergency Plan (FEP), and for ensuring that changes and revisions are prepared, coordinated, published and distributed. The Flood Operations Committee (see §3.2) will provide assistance in this regard. Each annex and appendix describes the organisation/agency responsible for those documents.

This FEP will be reviewed and updated at least annually based on deficiencies identified in simulated or actual use, or due to demographic, structural, organisational or technological changes. Contact names and telephone numbers (i.e., Flood Operations Committee, staff, departments/agencies, special facilities, schools, etc.) are maintained by the appropriate agencies and are updated yearly.

EXECUTIVE SUMMARY

Flood emergency planning is an integral part in the management of flood risk in Ireland. Government policy states that local authorities are responsible for the development of flood-related aspects of emergency response plans, with advice and assistance from the Office of Public Works if required.

A Flood Emergency Plan (FEP) is designed to bring the user to the point of knowing **what** is to be done, and **who** is to do it prior to, during and after a flood. It will include information relative to **when** and **where** the response will be effective, and **why** it will be done. Each participating organisation must depend upon its own expertise to develop the procedures describing "**how**" to carry out its assignments in support of the plan. This FEP is to be considered a sub-plan of Wicklow County Council's Major Emergency Plan. The Plan is updated annually and reviewed after each activation.

The text box below gives an overview of the different alert-stages and the response agencies involved in each stage.

All Clear (Level 1: Code Green)

The all-clear stage will apply to the period when there is no imminent likelihood of flooding. During this time, training and testing of the plan should be carried out, and a general awareness of flooding issues should be nurtured within the community. A preparedness and awareness campaign should be implemented during the all-clear period.

Flood Imminent (Level 2 – Warning: Code Orange)

Warning Level 'Flood Imminent' will require the activation of the Alert Stage 2: Code Orange. This is the stage at which there will be possible flooding and damage to properties and roads. Greystones Area Office, with its Flood Operations Manager and Flood Warning Manager, are activated while the following Flood Response agencies are informed to begin mobilisation:

- (a) Civil Defence
- (b) Gardaí
- (c) Fire Service
- (d) Wicklow County Council;
- (e) Health Services Executive (HSE)

The Flood Operations Committee will meet to discuss the measures to take.

The media will be informed about the traffic situation and, if the warning suggests that further, more severe flooding is expected, information about traffic diversions and the evacuation procedures will also be given.

Severe Flood Warning (Level 3 – Warning: Code Red)

Warning Level 'Severe Flood Warning' will require the activation of the Alert Stage 3: Code Red. This is the stage at which there may be extensive flooding of properties and a major threat to life. Evacuations may be required and assistance from organisations outside of the immediate area may need to be called upon. The following agencies are mobilised:

- (a) Greystones Area Office with its Flood Operations Manager and Flood Warning Manager;
- (b) Civil Defence
- (c) Fire Service
- (d) Gardaí
- (e) Wicklow County Council
- (f) HSE
- (g) Defence Forces
- (h) Coast Guard

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1. INTRODUCTION

1.1 Background

In September 2004 the Government approved the publication and implementation of the recommendations of the Report of the Flood Policy Review Group. In this document, the Office of Public Works (OPW) was identified as the lead agency for implementing Government policy for flood risk management in Ireland. The implementation of the report has given rise to the “*Flood Emergency Response Planning*” Project as one of the fifteen comprehensive work programmes being developed by the OPW.

The responsibilities and roles in relation to responding to flooding situations are defined in the Report of the Flood Policy Review Group, and the Department of the Environment, Heritage, and Local Government (DoEHLG) document, “A Framework for Major Emergency Management” (Sept. 2006).

Local Authorities are the ‘front line’ agency responsible for responding to flooding situations, co-ordinating local relief efforts and developing flood-related aspects of emergency response plans. The OPW provides advice and assistance, as required, in the preparation of flood-related aspects of emergency response plans.

Prior to the writing of this plan, a review of Irish and International best practice was undertaken as part of the Stage I Flood Emergency Response Planning Project. Its purpose was to identify useful procedures and practices that could be applied to the implementation of flood response planning for the Irish situation. This FEP is to be considered a sub-plan of Wicklow County Council’s Major Emergency Plan.

1.2 Purpose

This flood emergency response plan outlines the roles and responsibilities of all parties involved and the communication channels to be used prior to, during and after a flood event. The parties involved are the local authority, emergency services, and support services. The purpose of the response plan is to reduce risk to health and life and damage caused by flooding.

It is designed to bring the user to the point of knowing **what** is to be done, and **who** is to do it. It will include information relative to **when** and **where** the response will be effective, and **why** it will be done. Each participating organisation must depend upon its own expertise to develop the procedures describing "**how**" to carry out its assignments in support of the plan.

1.3 Structure of the Plan

The FEP is divided into three sections, and consists of a Main Plan, the Appendices, and the Functional Annexes.

The **Main Plan** (Described in Chapters 1-5) has a broad framework and describes the approach to flood emergency response management, planning and operations.

The **Appendices** (Described in Chapter 6) are item specific. These are required when the response to a flood cannot be expressed generically in the basic plan. They give additional information to that described in the basic plan. (Described in Appendices A-K)

The **Functional Annexes** (Described in Chapter 7) are components of the FERP that provide specific information and a description of response operations for each individual response agency. They expand upon information contained in the basic plan.

This Plan should be read in conjunction with the overall Major Emergency Plan for the county that may also reflect responsibilities of agencies at these different levels.

2. AREA OF OPERATION & FLOOD HISTORY – RISK ASSESSMENT

2.1 Area of Operation

This FEP outlines the way in which flooding is to be dealt within the town of Greystones and the immediate surrounding areas. The area that this flood emergency response plan covers is shown in Appendix B, Maps 1(a). They show the route of the rivers through the town, the access roads, and other pertinent information.

The town of Greystones, located in north County Wicklow, is situated 35km south of Dublin on the eastern coast, and has a population of 7,106 within the urban area of the town and approximately 9,090 further inhabitants in the immediate hinterland (Delgany & Kilcoole) - 2006 Census.

There is no major river through the town of Greystones but instead it consists of a network of smaller streams and culverts.

As Greystones is situated close to the sea, flooding may also occur close to the sea front due to high tides. This flooding, due to high tides only, has generally been minor in comparison to flooding due to high tides accompanied by heavy rainfall and have tended to recede quickly. Sea defences have also been strengthened at the sea front in recent years.

The N11/M11 bypasses the town while the R761, the Killincarrig Road and R762 provide road access to and from the town.

The Flood Operations Centre is to be located at the Greystones Area office, at Civic Offices, Mill Road, Greystones.

2.2 Flood History

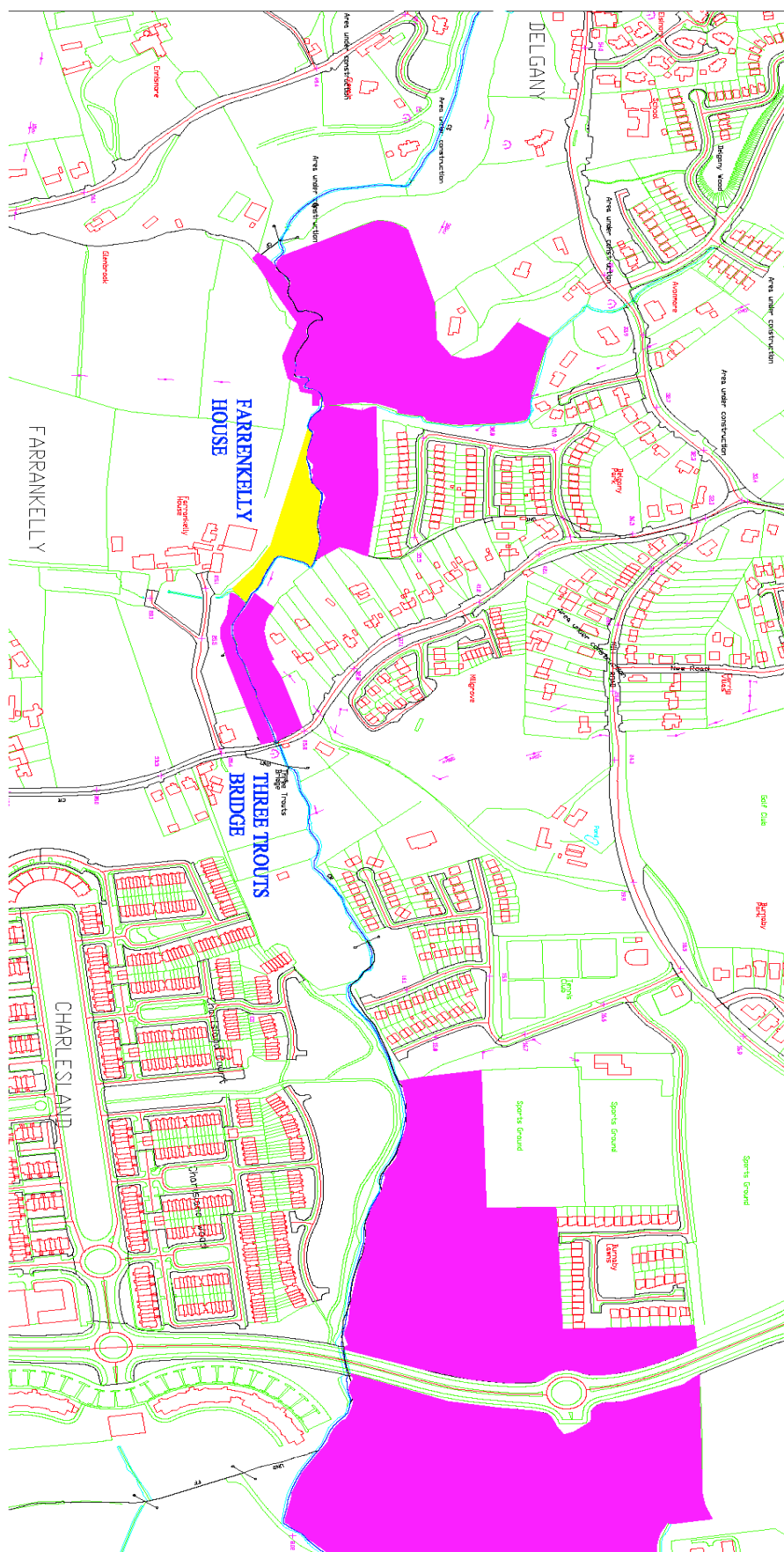
Historically the areas that have experienced the worst flooding in Greystones include the R762 & R761, the Templecarrig area and the Harbour area on Victoria Road.

Recently, on the 16th of August 2008, Greystones experienced severe localised flash flooding. This was the worst flooding experienced in Greystones in recent times. The flooding itself was caused by brief but remarkably intense rainfall over a 20-25 minute period between approximately 1 pm and 4 pm. As the catchment area had already been saturated, this intense rainfall caused a huge quantity of run-off surface water that quickly made it's way to the towns drainage system and overwhelmed it causing localised flooding. Many of the town's culverts flooded mainly due to blockages. At the time there had been no guidelines or procedures for dealing with this type of flooding and due to the suddenness of the event there was little time to activate preventative measures.



Map: Worst affect areas by flash flooding

The Three Trout Stream flows for 4km approximately within the Greystones/Delgany. It is predominantly clear, fast flowing, shallow in nature with a significant gravel bed along most of its length. As the largest water coarse through Greystones, the area surrounding the riverbed is prone to flooding during heavy rainfall. Studies of the river indicate that the main contributory factors to this include - illegal dumping into the river, new development adjacent to the river and encroachment of housing. The field on the north bank of the stream (near Charlesland) is substantially lower than that of the golf course on the other side of the stream, and is poorly drained grassland and is open to seasonal/ periodic flooding. The bridges have flooded their banks where the corridor is restricted in width. The presence of marsh and wet grassland is an indication of seasonal flooding. Below is a map highlighting the areas that historically flood.



Yellow: Marsh Land
Purple: Wet Grassland

3. ROLES AND RESPONSIBILITIES

3.1 Organisations Involved

A summary of the roles and responsibilities of each organisation is given below. Each participating organisation, private or governmental, must depend upon its own expertise to develop the procedures describing "**how**" to carry out its assignments in support of the plan. The execution of these tasks requires integration and coordination with the Local Authority response; this will be facilitated by the activation of the Flood Operations Committee.

Note: Each response organisation is responsible for having its own procedures in place to respond to flooding (who to send, where to go, what to do, priorities etc.)

Contact-details of each agency involved are to be found in Appendix A, and the organisations to be involved in the response effort are as follows:

- Greystones Area Office is the lead flood response agency.

Assistance will be provided by other response organisations including:

- Civil Defence,
- An Garda Síochána,
- County Wicklow Fire Service,
- Wicklow County Council,
- Health Services Executive and the Ambulance Service,
- Defence Forces.
- Coast Guard

3.2 Flood Operations Committee

The Flood Operations Committee consists of officers from Greystones Area Office, the Major, Vice-Major and also at least one designated member from each of the other response organisations as noted above. The Flood Operations Manager is the chairperson for the committee. The Flood Operations Committee will be responsible for the review and update of the flood emergency response plan for the town. While each individual agency is responsible for the training of its own staff, the Flood Operations Committee will arrange a flood response exercise at least once a year.

Upon receipt of a flood warning, the Flood Operations Manager may, depending on the expected flood severity, convene a meeting of the Flood Operations Committee to co-ordinate the flood response for the town.

The 'Threshold Flood Level' for the requirement for the Committee to meet is identified as weather warnings of more than 25mm expected rainfall in a 12 hour period or when a weather warning is received in the Greystones Office for severe weather in Wicklow Town and Bray Town.

3.3 Flood Assessment Manager (FAM)

An Engineer from the Local Authority is the Flood Assessment Manager (FAM). The Flood Assessment Manager will co-ordinate the flood response of his flood assessment team for Greystones in the early stages of flooding. The FAM will take command when there is a severe weather warning from Met Eireann which forecasts heavy rainfall. From this point on, he will focus mainly on flood forecasting and warning. The responsibilities of the FAM are defined as follows:

Early Stages of Flooding:

- (a) Will activate the Flood Emergency Plan where there is a potential risk of flooding.
- (b) Receiving severe weather reports from Met Eireann and taking appropriate action if required.
- (c) Continually monitoring the flood warning system and Met Eireann warning.
- (d) Co-ordinating the response of Local Authority personnel.
- (e) Collecting and maintaining records/information required, works carried out and the flood levels at the particular sites from the workforce on the ground.
- (f) Informing the key organisations of the Flooding Stage, the Gardaí, the Fire Service, the Civil Defence and the Health Services Executive (including the Ambulance Service).
- (g) Contacting and briefing the media.

Advanced Stages of flooding:

- (h) Continually monitoring the flood warning system, Met Eireann warning, tide levels, wind force and direction, atmospheric pressure, river levels and rainfall amounts.
- (i) Informing the Flood Operations Manager of the severity of flood expected.
- (j) The Flood Assessment Manager decides together with Flood Operation Manager what level of response will be required (Level 1,2,3).
- (k) Co-ordinating the response of Local Authority personnel with the Flood Operations Manager during the higher stages of flooding.
- (a) Chairing the Flood Operations Committee.
- (b) Collecting information on flood levels and flooded areas, and disseminating that information to other response organisations, the Gardaí, the Fire Service, the Civil Defence and the Health Services Executive (including the Ambulance Service).
- (c) Contacting and briefing the media.
- (d) Informing the public about the flooding situation and evacuation.
- (e) Responsible for the decision to evacuate (if required)
- (f) Arranging and chairing of post-flood reviews.

3.4 Greystones Area Office (Lead Authority)

As the lead agency for flood response, the local authority will be responsible for the bulk of the flood response activities. The Council is responsible for provision of the front line response to flooding and provision of the Flood Assessment Manager (FAM). The following functions are the responsibility of the local authority:

- (a) Operate a flood warning system, and alert other response organisations as required
- (b) Provide sand and sand-bags – available from the Depot, Mill Road
- (c) Have traffic and flood warning signs available
- (d) Arrange street closures in consultation with An Garda Síochána
- (e) Clear obstructions out of watercourses where possible before and after flooding.
- (f) Brief Government Departments/Agencies and Elected Members/Management as requested
- (g) Liaise with adjoining Local Authorities
- (h) Brief and contact the media
- (i) Inform public about the flooding situation and evacuation (door to door if necessary, and leaflets to be issued where there is no reply from inhabitants).
- (j) Carrying out of recovery operations
- (k) Arrange detour routes together with An Garda Síochána in advance of the flood arriving
- (l) Provision of food and accommodation where required, with assistance from the Civil Defence
- (m) Assist in arrangements for the evacuation of mobility impaired persons from the affected areas
- (n) Maintain a register of vulnerable people (names, addresses and contact-details) in areas liable to flood in conjunction with the HSE and other organisations – to be reviewed on an annual basis.
- (o) Request assistance from Defence Forces if required

3.5 An Garda Síochána

The overall description of the duties of An Garda Síochána is the protection of life and property. An Garda Síochána have responsibility for the maintenance of law and order, the management of traffic and the execution of functions as allocated in the Framework for Major Emergency Management procedures. The following functions are relevant to a major flood incident:

- (a) Supervise road closures and detours in consultation with the Local Authority
- (b) Discuss detour routes with the Local Authority
- (c) Patrol detour routes to prevent illegal/obstructive parking prior to and during a flood incident
- (d) All traffic queries to be addressed by the local Garda station.
- (e) Public safety and maintenance of public order
- (f) Management of traffic access and egress from affected areas.
- (g) Patrol affected areas and evacuated premises
- (h) Assist with Fire Service during evacuations
- (i) Request assistance from Defence Forces if required
- (j) Maintenance of emergency transportation routes
- (k) Provide security for visiting dignitaries.
- (l) Inform the HSE and Fire Service of road closures
- (m) Assist in evacuation of people.

- (n) Activate the Garda Air-Support unit if required
- (o) Request assistance from Coast Guard if required

3.6 Fire Service

The Fire Service's primary responsibility at a flood incident is the rescue of persons at risk. They will discharge this responsibility by undertaking the following functions:

- (a) Deal with emergency calls from the Gardaí and Roads Authority, and 999 calls where rescue is required
- (b) Protection of critical facilities from the adverse effects of flooding
- (c) Support the local authority in the alleviation of flooding in low lying properties
- (d) Assist with rescue and evacuation of people with further assistance from Civil Defence, the Gardaí and the HSE

3.7 Civil Defence

Command of all Civil Defence resources rests with the Civil Defence Officer. The primary function of Civil Defence is to provide support to the Emergency Services. The level of response provided by the Civil Defence will depend on the manpower available to them at the time. They will undertake the following functions in support of, and under the control of, the local authority services:

- (a) Assist in providing boats for evacuation etc.
- (b) Provide assistance to Gardaí with detour/street closures if necessary.
- (c) Assist in evacuations
- (d) Assist in the filling of sandbags.
- (e) Provision of incident control vehicle, and other specialist vehicles for relief duties
- (f) Assist the local authority with the welfare of evacuees and displaced persons
- (g) Assist in the setting up and maintenance of short-term rest centres for evacuees
- (h) Assist in the rescue of people from rivers to a certain water level.
- (i) Assist the local authority in the provision of food and bedding for evacuees

3.8 Health Services Executive (including the Ambulance Service)

The HSE including Ambulance Service have responsibility for Public Health, Community Welfare and the provision of ambulance and hospital services and the execution of functions as allocated in the Framework for Major Emergency Management procedures. The following functions are relevant to a flood incident:

- (a) Ambulance service; all 999 calls and calls from Defence Forces, Gardaí and Civil Defence for evacuation of sick and injured
- (b) Provision of First Aid & Medical Facilities to responders and affected persons
- (c) Issue of public health notices
- (d) Provision of counselling facilities to affected persons where requested
- (e) Management of Voluntary Aid Societies (such as the Red Cross)
- (f) Monitor quality of the town water supply
- (g) Provision of social service assistance at temporary rest centres

3.9 The Permanent Defence Forces.

The Defence Forces will only be activated in an extreme event where local resources become overwhelmed. The Gardaí through Garda headquarters will request the assistance of the Defence Forces. The roles of the Defence Forces will be as follows:

- (a) Assist in transport from affected areas
- (b) Assist in evacuation
- (c) Support to other services
- (d) Provision of specialist vehicles for rescue

3.10 Coast Guard

In severe situations, the Coast Guard may be called upon to assist in the evacuation and rescue of people from homes. They would normally be activated by the Gardaí.

4. FLOOD WARNING STAGES AND ACTION-PLAN




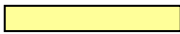



4.1 Flood Warning System

The levels quoted in the second from the left hand column relate to the levels / rate of rainfall in mm/hr. Currently there is no automatic flood warning system for Greystones.




4.2 Action Plan

It shall be noted that all key levels given in Table 4.1 below are indicative, and the accuracy of these levels is not exhaustive. The table is to be read in conjunction with the roles and responsibilities as outlined in Chapter 3.

To enable all responding agencies to read the Action Table below, each organisations actions have been highlighted in different colours as follows:

Flood Assessment Manager/ Local Authority:	
An Garda Siochana:.....	
Health Services Executive:.....	
Civil Defence:.....	
Fire Service:.....	
Defence Forces.....	
Coast Guard.....	

Alert Levels are shaded as follows:

All Clear (Level 1: Code Green).....	
Flood Imminent (Level 2 Warning: Code Orange).....	
Severe Flood Warning (Level 3 Warning: Code Red)...	

If the alert level is changed to a higher or lower level all relevant organisations should be notified and all correspondence between response organisations shall quote the alert level in place at that time.

Table 4.1: Localised Flood Response action table

Location:				
Tidal conditions /Rainfall levels	Weather Warnings /Rate of Rainfall (mm/hr)	Situation:	Action	Action by whom?
	< 8	All Clear	- No imminent flood risk	-
Continual Rainfall	> 8	No flooding/ precautionary warning/high rate of rainfall	- Continue examining weather warnings and flood reports and continue monitoring rainfall levels, wind strength and direction, atmospheric pressure and tidal levels	FAM
			- Alert OSC about status of warning and proposed response actions. - Gardaí, Fire Service, Civil Defence alerted about actual stage of warning, and traffic situation. - Register reports of flood levels/information from ground staff. - FAM to co-ordinate Local Authority Personnel in the removal of obstructions from watercourses.	FAM to activate GAO-crew
Continual heavy rainfall	> 15	Heavy Rainfall/localised flooding	- Continually monitor Met Eireann reports. - Begin to register reports of flood levels/information from ground staff. (important to record extreme flood event) - Inform OSC about warning stage	FAM
			- Regularly communicate with Flood Operations Committee.	OSC
			- Inform Media of the possibility of flooding and of road closures.	OSC to activate GAO-crew
			- Co-ordinate response of Wicklow County Council and Greystones Office personnel - Re-check and monitor other locations.	OSC to activate LA crew with CD-assistance
			- Continually communicate with Flood Operations Committee. - Decide whether or not to evacuate - Contact Civil Defence to enable them to prepare to receive evacuees. - Contact Fire Service to prepare for evacuations. - Provide addresses of vulnerable people to Fire Services. - Contact Evacuation Centres to make premises available	OSC
			- Arrange accommodation and facilities (temporary rest care centre) for evacuees in evacuation centres. - Arrange provisions of food and bedding to evacuees.	OSC with assistance from LA and CD*
			- Inform Control Room about traffic situation - Discuss detour routes with local authority. - Implement parking control and ensure free flow of traffic - Patrol detour routes and evacuated areas - Liaise with the Defence Forces to warn that they may be required to assist in evacuations and transport of persons.	Gardaí
			- Prepare evacuating vulnerable and disabled people from predicted flooded area - Offer use of incident control vehicle - Inform residents in predicted flooded area about expected evacuation by means of local civil defence wardens. - Assist the HSE at the temporary evacuation centres..	Civil Defence
			- Assist the Civil Defence in evacuating vulnerable and disabled people from predicted flooded area. - Provide transport out of flooded areas	Fire Service
			- Provide first aid to ground staff and affected members of the community.	HSE
Continual heavy rainfall	> 25	Severe flooding	- Register reports of flood levels/information from ground staff. - Inform OSC about actual stage of warning and warning.	FAM

	Severe weather warning for Bray and Wicklow	<ul style="list-style-type: none"> - Transfer operational control of the flood emergency to the Chief Fire Officer if necessary - Discuss if further evacuation will be necessary. - Request assistance from neighbouring local authorities. - Convene meeting with Flood Operations Committee (incl. Defence Forces) to discuss further actions. - Arrange provision of additional accommodation, facilities, food and bedding for evacuees. 	OSC
		- Inform media about evacuation procedures.	OSC
		- Liaise with Defence Forces when assistance in evacuation or transport, if required.	OSC
		- Liaise with neighbouring authorities for assistance if required.	OSC
		- Inform media about evacuation.	OSC
		Assist evacuations, if necessary	Civil Defence
		- Deploy incident control vehicle to assist the flood response teams.	
		- Assist HSE in provision of accommodation and food at evacuation centres.	Fire Service
		- Take operational control of the flooding emergency, if necessary	
		- Evacuate people from predicted flooded area.	Gardaí
		- Supervise all road closures and detour routes. Continue to monitor other locations.	
		- Inform HSE and Fire Service through Control Room about traffic situation	
		- Implement parking control and ensure free flow of traffic	
		- Patrol detour routes and evacuated areas	
		- Assist Fire Service in evacuations, if necessary	HSE
		- Request assistance from the Coast Guard if required	
		- Issue health notices and social service assistance if necessary (e.g. health issues with polluted flood waters)	Defence Forces
		- Provide counselling to affected persons if necessary.	
		- Supply specialist vehicles to assist in transport in and out of affected areas and to assist with evacuations if required	Coast Guard
		- Help with the evacuation and rescue of people from homes in severe situations	

FAM: Flood Assessment Manager
 OSC: LA On Site Coordinator
 CD: Civil Defence
 LA: Local Authority
 LA-crew: Local Authority crew
 GAO-crew: Greystones Area Office crew
 HSE: Health Services Executive
 CG: Coast Guard

5. INFORMATION MANAGEMENT AND THE MEDIA

5.1 Communication facilities

Information between flood response agencies will be disseminated primarily by mobile phone. Email and any other pre-approved method of communication will be used if required. The Public will be informed by radio, newspapers, television and on-site information.

5.2 Media

5.2.1 Roles & Responsibilities

The Flood Operations Manager is the designated person for dealing with the media and will arrange to brief and update the media on an ongoing basis. In this regard the Flood Operations Manager will be responsible for the collection and dissemination of information from the various agencies. Arrangements will be made to provide facilities for the media at the Flood Operations Centre at the Civic Offices to ensure that they are regularly briefed.

Contact-details are described in Appendix A.

5.2.2 Radio

Flood warning messages will be broadcast, on behalf of the Greystones Area Office, on the local radio stations. The warnings will identify the areas affected. Anyone concerned that weather conditions may cause flooding, should listen to:

- RTE 1 Radio
- RTE 2FM
- News Talk
- East Coast Radio

5.2.3 Newspapers

Local Newspapers will be used throughout the year to create Public Awareness of flooding in their area. Articles submitted by the Flood Operations Manager are to be published throughout the year. It should be made clear to members of the public that they should have their own individual flood response procedures in place to safeguard their own properties.

The most likely newspapers to be used in the Greystones area are as follows:

- Wicklow Times
- Wicklow People

5.2.4 Television

During major events, National television may broadcast flood warning information. Anyone with a text service on their television can check the regional weather pages on RTE 2 Teletext, and look for flood warning information for Greystones.

AA Roadwatch will also be used to broadcast warnings regarding road closures and general road safety.

5.2.5 Onsite

People in the immediate vicinity of the incident will receive instructions from the emergency services onsite.

5.2.6 Information to be disseminated

Inform the public about:

- Where to get information on the flood situation (radio, television, newspapers, local authority;
- Actual flood warning stage (see table 4.1 Chapter 4);
- Flood warning: what is likely to happen?
- Traffic situation;
- To protect their possessions if required;
- To prepare for evacuation if required

6. APPENDICES

APPENDIX A

LIST OF CONTACTS

APPENDIX A: List of Contacts

A list of contacts from all the agencies involved in the flood response will be as shown below.

	Organisation	Position within Organisation	Landline Phone no.	e-mail address
Greystones Area Office				
	GAO	Reception	01-2876694	greyston@wicklowcoco.ie
	GAO	Senior Executive Engineer	01-2876694 ext 8442	Eheslin@wicklowcoco.ie
	GAO	Town Clerk	01-2876694 ext 8446	mporter@wicklowcoco.ie
	GAO	Area Supervisor, JOG	01-2877911	JOGorman@wicklowcoco.ie
	GAO	Area Supervisor, OM	01-2877002	omalone@wicklowcoco.ie
Greystones Gardaí				
	Gardaí	Greystones Garda Station	01-666 5800	
	Communications Centre	Main Office, Bray	01-666 5300	
Civil Defence				
	Civil Defence	Civil Defence Officer, Bill Downes	0404-20100 ext 2149	wdownes@wicklowcoco.ie
		Stand in, Michael Richardson	0404-20100	
Greystones Health Services Executive & Ambulance Service				
	HSE- Env. Health	HSE, Customer Services Freephone	1800 520520 (9am-5pm)	infoline@mail.hse.ie
	HSE – Health Centre	General office	01-287 7311 / 7617	
	Ambulance Service		999	
Greystones Fire Service				
Emergency Contact no.	Greystones Fire Service	General office	01-2862929	firehead@wicklowcoco.ie

	Organisation	Position within Organisation	Landline Phone no.	e-mail address
RTE 2FM	RTE	RTE News desk	01-208 2177	
East Coast Radio		News desk	01-272 4721	
		Emergency - Ciara O'Connor	086 392 3862	mail@eastcoast.fm
		Emergency - Sean Ashmore	087 252 3495	
News Talk		News desk	01-644 5128	
RTE 1	RTE	RTE News desk	01-208 2177	newsroom@newstalk.ie
				newsdesk@rte.ie
Wicklow Times		Reception	01-286 9111	
Wicklow People		Reception	0404-67198	front.office@peoplenews.ie
Defence Forces				
Duty Officer		Main Offices	01-804 2720/21	
Control Room				
Control Room, Mill Road	GAO	Reception	01-287 6694	
Evacuation Centre				
Shoreline Leisure, Mill Road		Reception	01-2878180	greystones@shorelineleisure.ie
		Manager Eamon Whelan		
Neighbouring parties				
Bray	BTC	Reception	01-274 4900 / 01-286 0930	Tclerk@braytc.ie
	BTC	Town Engineer	01-287 7122 / 01-287 6694	soneill@braytc.ie
Wicklow County Council	WCC	County Buildings	0404 -20100	cosec@wicklowcoco.ie
Miscellaneous				
Telephone Interpretor Service	Interling		01- 88 787 88	info@interling.ie
Major Greystones	WTC	Major – Cllr Chris Maloney	N/a	Cllr.chrismaloney@yahoo.ie
Deputy Major Greystones	WTC	Deputy Major Ciaran Hayden	01-2017280 (work)	info@ecrtyres.com

APPENDIX B

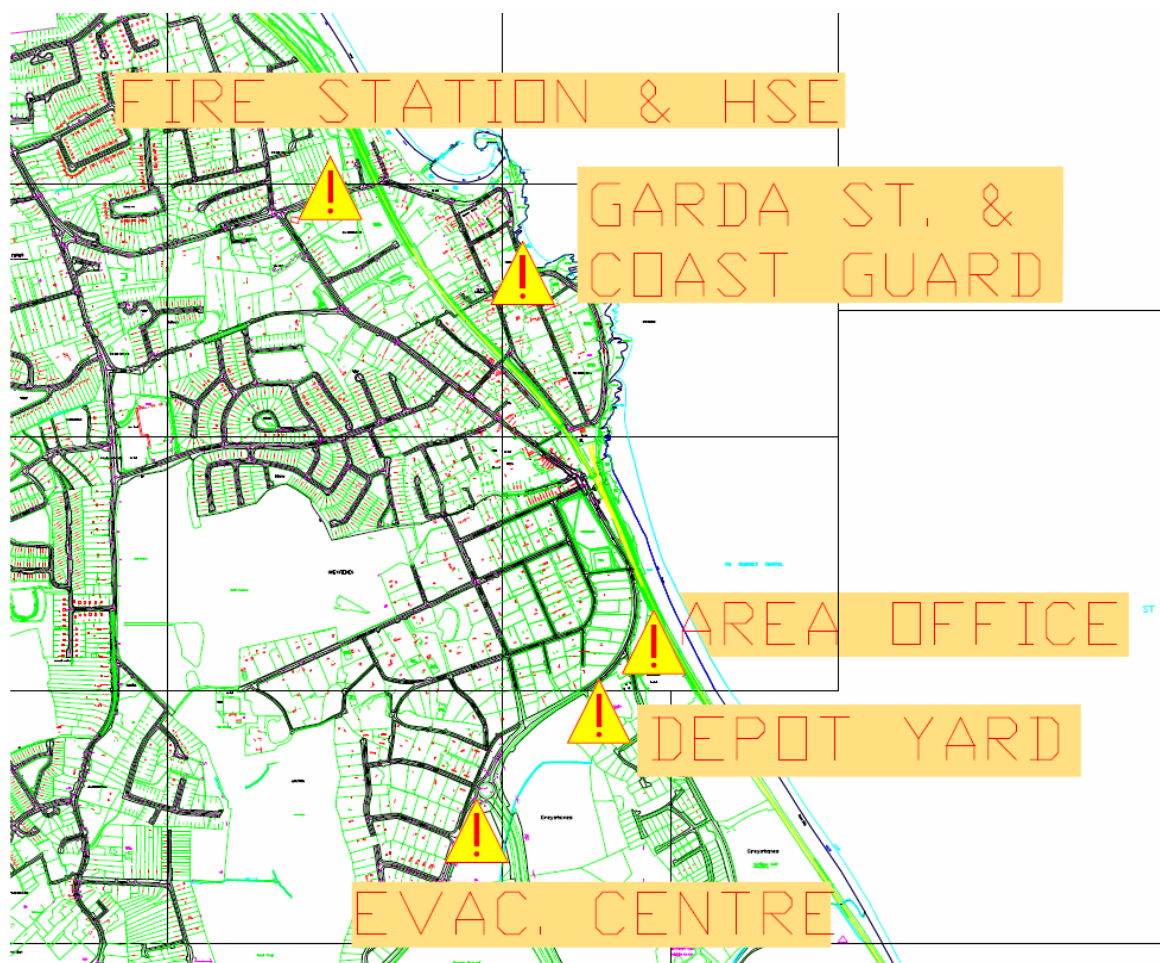
Maps

The following is a list of the relevant maps pertaining to flood response in Greystones:

Map 1(a) shows the known areas of regular flooding in the town

Map 1(b) shows the buildings relevant to the flood response organisations

Map 1(a) Map showing areas of regular flooding

Map 1(b) Map showing the buildings relevant to the flood response organisation

Fire station & HSE Building – Victoria Road

Garda St & Coast Guards – Marine Terrace

Greystones Area Office – Mill Road

Depot Yard – Mill Road

Evacuation Centre – Shoreline Leisure, Mill Road

APPENDIX C

Field Equipment, Facility Resource List, and Main Buildings

In preparation for flood emergency, a list of all available resources has been compiled.

Each response organisation will benefit from prior knowledge of the resources available to all.

The specific resources, which each organisation may supply, are as follows:

Greystones Area Office:

Greystones Area Office, machinery used for flood response in Greystones is stored at the Depot on Mill rd, Greystones. The equipment available to the Council is as follows:

JCB

Sandbags

Submersible Pump – only suitable for low volume of water

Civil Defence:

The Civil Defence building is located at Court House Wicklow and from there, the following equipment may be supplied:

Jeeps

Minibus

Incident Control Vehicle (equipped with emergency equipment)

Life-Jackets

Stretchers

Petrol powered pump

Blankets

Handsets

Portable mast for communications

Heavy-duty re-chargeable batteries.

Gardaí

The following equipment is attached to Greystones Garda Station:

Two marked Patrol Cars

Two Unmarked Patrol Cars

Two Mountain Bikes

Blankets

Handsets

Traffic Management Signs

Additional Equipment that is available to Greystones from District headquarters, Bray:

One Marked Jeep
Three Marked Patrol Cars
One Marked Van
One Unmarked Van
One Motorcycle
Three Unmarked Patrol Cars
Four Mountain bikes
Twenty No Parking Cones
Gardai Air Support

Fire Service:

The Fire Station is located on Victoria Road, Greystones. The equipment available to the Fire Service is as follows:

Stretchers
Pumps
Blankets
Handsets

Note: The pumps are not designed for use with clean water not dirty water as found in flood situations.

Facility Resource List

In preparation for flood emergency, a list of all buildings available to the response organisations has been compiled, and can be seen on Appendix B, Maps 1(a) and 1(b). Each organisation will benefit from prior knowledge of the resources available to them. The Buildings/Facilities resources include the following:

Greystones Area Office, Civic Offices Mill Road, Greystones

- The building will be used as the Flood Operations Centre
- Emergency phone line to be operated from the building
- Sanitary facilities should be available (showers/toilets)

Greystones Garda Station, Marine Terrace, Greystones

- Contact building for the Garda response

Greystones Coast Guard, Marine Terrace, Greystones

- Contact building for the Coast Guard response

HSE building, Victoria rd, Greystones

- Contact building for the HSE response

Greystones Fire Station, Victoria Road, Greystones

- Storage of Civil Defence equipment
- Storage of Fire Services' equipment

Shoreline Leisure, Mill Road, Greystones

- To be used as a care centre/residential centre for evacuees
- Sanitary facilities should be available (showers/toilets)

Depot, Mill Road, Greystones

- Sandbags Available

APPENDIX D

Sandbag/Flood proofing Policy and Procedures

The Sand bag policy for Greystones will be as set out below:

The local authority will provide sandbags and/or sand at strategic locations throughout the town prior to a flood, during any flood sandbags may be collected in person at the depot, Mill Road. Note:

- We cannot guarantee the same level of service to all households at risk during an emergency
- Phone enquiries about sandbags have a significant negative effect on the 999 service; and
- Dealing with sandbag issues is a major distraction for agencies whose main tasks are to save lives, evacuate people, provide safe shelter and provide emergency food and drink where necessary.

How to Use Sandbags

- It is essential to fill and lay sandbags correctly. They must not be over-filled (no more than half to 3/4 full) and when laid, well stamped down to force the upper bags to mould themselves to the lower bags. Build up the layers like brickwork with the bottom row butted up tight to each other, end to end and well stamped down before laying the second row on top. If the wall is more than two sandbags high, there should be double line of bottom sandbags, followed by a second double line, then a single line on top.
- If you are unable to get ready-made sandbags, you can make your own sandbags using compost bags, carrier bags or pillowcases filled with sand or earth. Put a plastic sheet down first to act as an extra seal.
- When protecting your home against flooding, all possible water entry points should be examined and sealed, including airbricks, air vents, and openings for electricity, gas, and water. If you do seal any gas vents remember to switch off the gas supply first to prevent the build up of carbon monoxide gas in your home.
- Seals around windows and doors should be made watertight, and where advance preparations are carried out, exterior walls should be protected.
- Waterproof wall sealants can be purchased from builders merchants, whilst temporary covers for vents may be purchased from suppliers of flood protection products. Remember that airbricks and air vents should only be sealed during flood conditions.

APPENDIX E

Evacuation & Vulnerability Registers

In the preparedness phase of the flood emergency response plan, there should be ample opportunity for evacuation procedures to be put in place. A system of assessing who will need to be evacuated will be required. Vulnerability listings will be useful at this stage. There should also be a method for recording who has been evacuated, and for recording who arrives at the rest care centres set up for the evacuees.

Evacuation

- Evacuation of residential properties is to be carried out by the Fire Services and the Gardaí with assistance from the Civil Defence. The evacuees are then to be brought to the designated evacuation centres.
- The relevant contact details for each of the above three agencies is given in Appendix A

Accommodation, facilities, food and bedding

- The evacuation centres shall be at Shoreline Leisure, Mill Road.
- A minimum of 48 hours accommodation shall be provided for at the evacuation centres.
- The HSE will provide food and bedding at the rest care centre

Vulnerability Register

Vulnerability registering involves the compilation of lists of people and their location, who would be especially at risk during a flood and would need special help or assistance. The Greystones Area Office has compiled a file of all reported flood related incidents and addresses in the town in order to establish such a register in conjunction with the HSE and other bodies.

APPENDIX F

Traffic Management

When a flood warning has been issued the local authority and the Gardaí will liaise with each other regarding the roads to be closed. They will also agree the most suitable detour routes to be used.

The Gardaí shall at all times ensure the free flow of traffic and enforce parking controls to keep detour routes free from congestion.

Description of Diversions:

Flooding Occurring

The R761 Bray-Greystones Road shall be closed and traffic diversions will be put in place.

Put traffic signs on Southern Cross Roundabout and at Redford.

South Bound Traffic (coming in the R761)

Divert at Southern Cross Roundabout to the N11 along the R768.

North Bound Traffic (heading on the R761)

Close the R761 before the Junction with the Templecarrig Road.

Divert all traffic back South on the R671 onto the N11 along the Farrenkelly Road.

The R762 Delgany-Greystones Road shall be closed and traffic diversions will be put in place.

Put traffic signs at Barry's Bridge and at the R761 / R762 junction.

East Bound Traffic (exiting the N11 into Delgany)

Divert traffic back onto the N11 for the Greystones Exit.

West Bound Traffic (heading into Delgany)

Divert traffic along the R761 Southbound onto the Farrenkelly Road.

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APPENDIX G

Flood Warning System Details

Greystones Area Office has contacted and liased with Met Eireann to establish a flood warning system.

When there is an forecast of >25mm of rainfall expected during a 12 hr period Met Eireann notify the Greystones Area Office via email.

In addition Wicklow County Council receives weather advisory notices from Met Eireann via fax, which are distributed by email to All Local Authority users.

APPENDIX H

Safety, Health and Welfare Considerations

Those involved in the flood response operation (including volunteers) should be trained and insured against personal injury.

Rest care centres and holding areas for evacuees should be designated, and medicines made ready in advance.

Public information procedures shall inform the community of possible health hazards associated with the aftermath of the flooding. The HSE will advise the public of any hazards associated with drinking water in the town in the aftermath of a flood incident.

All organisations involved in the flood emergency response shall refer to their parent safety statements.

Weils Disease

Weils Disease is an infection that is commonly transmitted by allowing contaminated water coming in contact with unhealed breaks in the skin. Usually the water is contaminated by the urine of an infected animal. Rats and mice are the primary hosts but a wide range of animals can carry the disease.

There are a wide range of symptoms and in some case there may be none at all. Weils Disease begins with flu-like symptoms followed by high fever, severe headaches, chills, muscle pain and vomiting. Symptoms appear after a 4-14 period.

Treatment with antibiotics prescribed by a doctor. There is no human vaccine for Weils Disease.

Remember that water can be contaminated – wash your hands with disinfectant if they come in contact with floodwater or silt debris.

E-Coli

E-Coli is another common water borne infection. Water intended for recreation (e.g., pools, shallow lakes) and for human consumption can also become tainted. When lakes become contaminated, several weeks or months can be required for water quality conditions to improve or return to normal.

Inflammation caused by the toxins is the first symptom of *E. coli* infection, which is characterized by the sudden onset of abdominal pain and severe cramps, followed within 24 hours by diarrhea.

Antibiotics do not improve the illness. Therefore, apart from good supportive care such as close attention to hydration and nutrition, there is no specific therapy to halt *E. coli* symptoms.

Working with Sewerage

Several work activities bring workers into contact with sewage and sewage products. The majority of illnesses are relatively mild cases of gastroenteritis, but potentially fatal diseases, such as leptospirosis (Weil's disease) and hepatitis.

Exposure to sewage or its products may result in a number of illnesses. These include: gastroenteritis, characterised by cramping stomach pains, diarrhoea and vomiting.

The most common way is by hand-to-mouth contact during eating, drinking and smoking, or by wiping the face with contaminated hands or gloves, or by licking splashes from the skin. By skin contact, through cuts, scratches, or penetrating wounds, ie from discarded hypodermic needles. Certain organisms can enter the body through the surfaces of the eyes, nose and mouth. By breathing them in, as either dust, aerosol or mist.

Ensure that employees and line management understand the risks through proper instruction, training and supervision. Provide suitable personal protective equipment that may include waterproof/ abrasion-resistant gloves, footwear, eye and respiratory protection. Face visors are particularly effective against splashes. Equipment selection and a proper system for inspection and maintenance are important

Clean-up Safely

Clean-up activities following floods often pose hazards to Residents and workers alike involved. Potential dangers include polluted water, electrical hazards, carbon monoxide exposure, heat or cold stress, drowning and exposure to hazardous materials. Because flood sites can be unstable, clean up workers might encounter sharp jagged debris, biological hazards, exposed electrical lines etc. Anyone involved in flooding should wear the appropriated protective clothing including hard hats, goggles, gloves, life jackets and water tight steel toe boots – this list is not exhaustive.

APPENDIX I

Training and Testing of the Flood Plan

In the case of actual emergency operations and/or exercises involving the use of this flood response plan, a follow-up debriefing will be held to identify strengths and weaknesses, and a corrective action plan will address where deficiencies were noted and recommend necessary revisions to be incorporated within 60 days

TRAINING:

Training and exercises are important functions in the Greystones awareness schedule. Through comprehensive individual and team training, both full and part-time emergency operations personnel develop the necessary knowledge and skills to effectively prepare for crisis situations.

It is the responsibility of every Council department/agency head to ensure that his or her personnel receive adequate training.

While the Flood Operations Committee coordinates emergency exercises, each department or agency is responsible for its own internal training requirements.

EXERCISES:

Exercises provide opportunities to learn and to demonstrate the ability of the emergency organisation to implement plans and accomplish checklist requirements. Such participation allows for a continual evaluation and fine-tuning of flood emergency plans and checklists.

The exercise should take the form of both desk exercises and field exercises.

Exercises shall be conducted annually to determine response time, familiarize the staff members with procedures, determine what deficiencies exist, and what additional training is required. It is envisaged that these training exercises will take place every July. This is the period immediately proceeding the flood season in Ireland, and is the most opportune time to carry out training exercises considering the training exercise will be fresh in the minds of those implementing it.

APPENDIX J

Flood Emergency Response Plan Distribution List

The table below identifies those stakeholders who will have an input into a major flood incident. It is important that the needs and activities of each of these stakeholders is addressed when responding to a major flood incident. After each revision of the plan, all those below shall be provided with the revised plan. The Flood Operations Manager shall request a confirmation of receipt of the plan from each of the stakeholders.

	Revision Number 01 (23/03/09)	Revision Number 02 (18/06/09)	Final 03 (09/07/09)
	Receipt confirmed (y/n)	Receipt confirmed (y/n)	Receipt confirmed (y/n)
Local Authority			
Greystones Area Office	y	y	y
Local Branch Library			
Emergency Services			
An Garda Siochana	y	y	y
Greystones HSE	y	y	
Greystones Fire Service	y	y	
Civil Defence	y	y	
Coast Guard	y	y	

APPENDIX K

List of Definitions

This appendix contains a glossary of terms and explanation of abbreviations used within the text of the plan.

Flood Operations Committee: Committee made up of senior local members of each response agency, that will be responsible for co-ordinating the carrying out of flood emergency response measures.

Flood Operations Manager: An Engineer from the Local Authority Engineering Staff who has responsibility for the co-ordination of the flood response actions during a flood event.

Flood Assessment Manager: An Engineer from the Local Authority Engineering Staff who has responsibility for monitoring the advance flood warning system prior to, and during a flood. He/She will communicate any relevant information to the Flood Operations Manager.

Fluvial Flooding: That flooding which is caused by watercourses, eg. streams and rivers.

Local Authority (LA): For the purposes of this plan, the local authority will mean 'Greystones Area Office', and all its divisions.

FERP: Flood Emergency Response Plan.

FOM: Flood Operations Manager

FAM: Flood Assessment Manager.

GAO: Greystones Area Office

DF: Defence Forces

CD: Civil Defence

CG: Coast Guard

APPENDIX L

FLOODING REPORT DETAILS SHEET

DATE: _____	TIME OF: _____ CALL
NAME: _____	
ADDRESS: _____ _____ _____	
PHONE: (Landline) _____ (Mobile) _____	
EMAIL: _____	
DESCRIPTION OF FLOODING (Road/Garden/House? SurfaceWater/Foul Sewerage?): 	
REPORTED BY: _____	
ADDITIONAL INFO (Directions, Cause, Possible Solutions etc.): 	
INSPECTOR'S COMMENTS: 	
INSPECTION DATE: _____	

7. FUNCTIONAL ANNEXES

Functional Annexes Overview:

The functional annexes will describe in detail the responses of each organisation. There will be an annex for each organisation specifically stating the amount of personnel to be deployed, exactly where to, and exactly what they are expected to do. Their role in providing assistance to other organisations will be outlined also.

The functional annexes are given below. It should be noted that the lists below are purely for operational purposes only, and in no way is a definitive account of the responsibilities of the organisations involved.

GARDA SIOCHANA – Functional Annex

I. MISSION:

The Gardaí will be responsible for general traffic management and the preservation of civil order during a flood emergency.

II. ORGANISATION AND ASSIGNMENTS:

The Gardaí will be represented on the Flood Operations Committee by a member of the force at sergeant level or higher, and preferably the sergeant with traffic detail. He/She will be responsible for the deployment of personnel to the flood response, and their management.

III. COMMUNICATION:

Regular communication between the Gardaí and the flood operations center will be by landline telephone communication.

Communications between Greystones Garda station and officers in the field shall be by two-way radio. In the event of failure of this system mobile phones shall be used.

IV. ROAD SIGNAGE FOR EMERGENCY DETOUR ROUTE:

ROAD FLOODED

NO ACCESS

PLEASE USE ALTERNATIVE ROUTE



Functional annex for the Fire Services is to be compiled in a similar fashion to the Gardaí.

The Defence Forces – Functional Annex

The Defence Forces will provide assistance as aid to the civil power in response to a request from an Garda Síochána or as aid to the civil authority which is assistance rendered to any other State Authority or bodies under their aegis.

In the event of an emergency situation which requires an immediate response a member of the Greystones Office shall contact the Duty Officer, Defence Forces Headquarters at (01) 8042720 (24 hours) and the Duty Officer for the Department of Defence who may be contacted at (01) 8042487 or 087 7457079 (outside normal office hours).

The request should include, as a minimum, the nature of the assistance required, the exact location rendezvous and time the assistance is required and contact details of the person in charge at the site of the incident. The level of support that can be provided Defence Forces will be demand led and provided on an “as available basis”, having regard to both current and contingent Defence Forces operational commitments.

Health Board & Ambulance Service

The HSE including Ambulance Service have responsibility for Public Health, Community Welfare and the provision of ambulance and hospital services and the execution of functions as allocated in the Framework for Major Emergency Management procedures.

In the event of an emergency which requires an immediate response a member of the Greystones Office shall contact the HSE Health Centre on (01) 2877311 or 999