

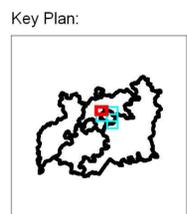
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Project- **GLOUCESTERSHIRE STRATEGIC FLOOD RISK ASSESSMENT**

Tile B1:- **STRATEGIC FLOOD RISK MAP SHOWING FLOODING FROM ALL SOURCES CHELTENHAM BOROUGH COUNCIL**

Rev.	By	Date	Description
A	MJ Grogan	12/08/08	Canal embankments and associated residual risk added

Drawn By	:- A J Bryan	Revision	-	Drawing Scale	:- 1:10,000	Drawing No.	:- WB/GLOS/DRAWING - 038
Checked By	:- B L Dunn	Status	DRAFT	Sheet No.	:- 1 of 5	Date	:- 26 March 2008
Approved By	:- J R Parkin	Plot Scale	:- 1:1 @ A1	Issuing Office	:- Birmingham		



NB: The Environment Agency has not produced Flood Zones for catchments with an area less than 3km². In such instances fluvial flood risk is present but is not illustrated.

Legend:-

	Council Boundary		Recorded Flooding - Impounded Water Bodies
	Main River Centreline		Recorded Flooding - Artificial Drainage
	Flood Zone 2 (Medium Probability)		Recorded Flooding - Surface Water
	Flood Zone 3a (High Probability)		Recorded Flooding - Fluvial
	Flood Zone 3b (Functional Floodplain)		Recorded Flooding - Unknown
			Canal Embankments
			Residual Risk

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PPS25: Flood Zones Definition

Flood Zone	Definition	Appropriate uses	FRA requirements	Policy aims
Zone 1 Low Probability	This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%).	All uses of land are appropriate in this zone.	For development proposals on sites comprising one hectare or above the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water runoff, should be incorporated in a FRA. This need only be met unless the factors above or other local considerations require particular attention. See Annex E for minimum requirements.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of sustainable drainage techniques.
Zone 2 Medium Probability	This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% - 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5% - 0.1%) in any year.	The water-compatible, less vulnerable and more vulnerable uses of land and essential infrastructure in Table D.2 are appropriate in this zone. Subject to the Sequential Test being applied, the highly vulnerable uses in Table D.2 are only appropriate in this zone if the Exception Test (see page D.3) is passed.	All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques.
Zone 3a High Probability	This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (1%) or a 1 in 200 or greater annual probability of flooding from the sea (0.5%) in any year.	The water-compatible and less vulnerable uses of land in Table D.2 are appropriate in this zone. The more vulnerable uses in Table D.2 should not be permitted in this zone. The highly vulnerable uses in Table D.2 should only be permitted in this zone if the Exception Test (see page D.3) is passed. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood.	All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques, and to relocate existing development to land with a lower probability of flooding, and to create space for flooding to occur by restoring functional floodplain and flood flow pathways and by identifying, allocating and safeguarding open space for flood storage.
Zone 3b The Functional Floodplain	This zone comprises land where water has to flow or be stored in times of flood. SFRAs should identify this Flood Zone (land which would flood with an annual probability of 1 in 20 (5%) or greater in any year or is designed to flood in an extreme (0.1%) flood, or at another probability to be agreed between the LPA and the Environment Agency, including water conveyance routes).	Only the water-compatible uses and the essential infrastructure listed in Table D.2 that has to be there should be permitted in this zone. It should be designed and constructed to remain operational and safe for users in times of flood, result in no net loss of floodplain storage, not impede water flow, and not increase flood risk elsewhere. Essential infrastructure in this zone should pass the Exception Test.	All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques, and to relocate existing development to land with a lower probability of flooding.

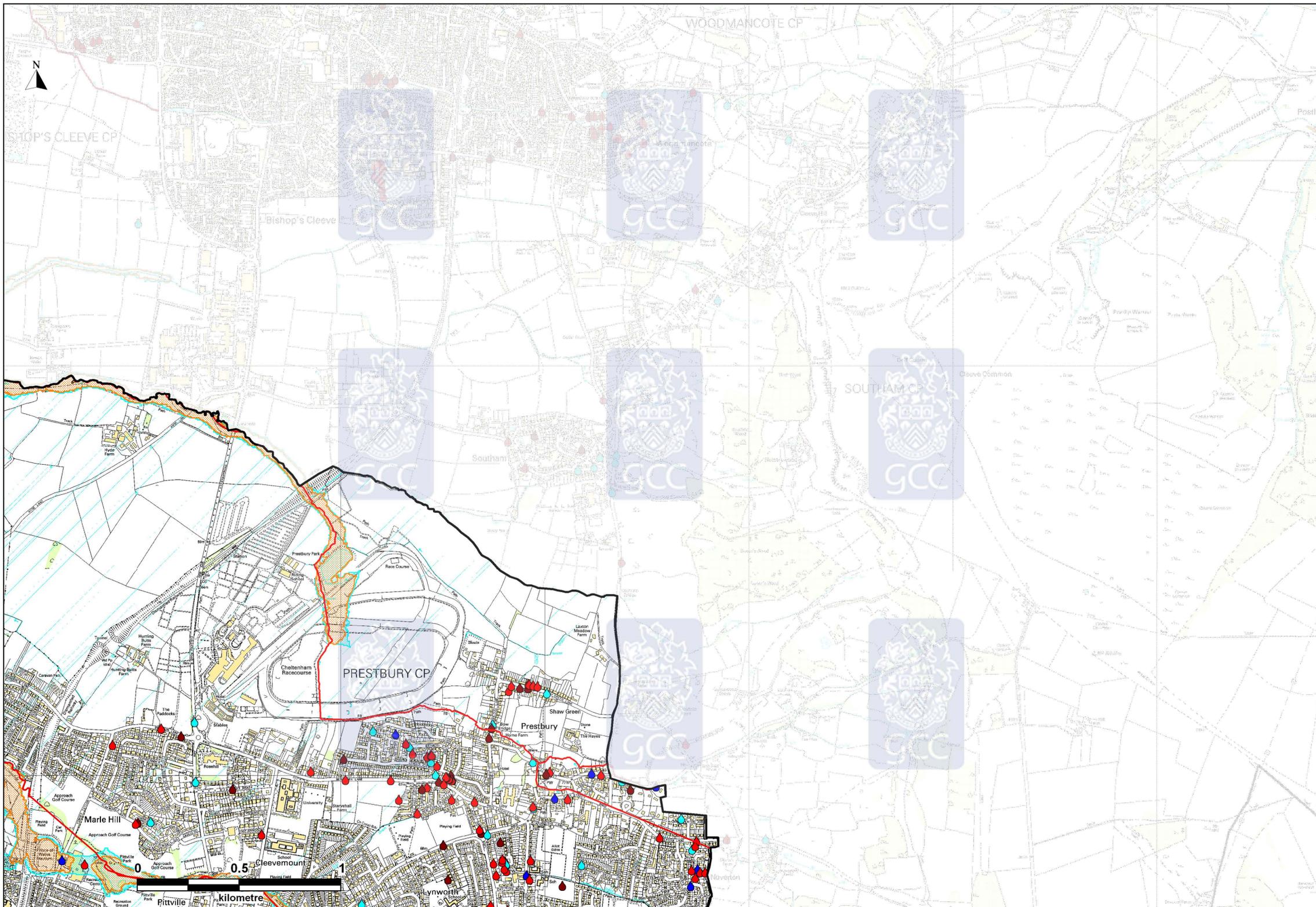
PPS25: Flood Risk Vulnerability and Flood Zone "Compatibility"

Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception Test Required	✓	✓
Zone 3a	Exception Test Required	✓	✗	Exception Test Required	✓
Zone 3b (Functional Floodplain)	Exception Test Required	✓	✗	✗	✗

✓ : Development is appropriate
 ✗ : Development should not be permitted

PPS25: Flood Risk Vulnerability Classification

Essential Infrastructure	- Essential transport infrastructure (including mass evacuation routes) which cross the area at risk, and strategic utility infrastructure, including electricity generating power stations and gas and primary substations.
Highly Vulnerable	- Police stations, Ambulance stations and Fire stations and Command Centres and telecommunications installations required to be operational during flooding. - Emergency dispersal points. - Basement dwellings. - Caravans, mobile homes and park homes intended for permanent residential use. - Installations requiring hazardous substances consent 19.
More Vulnerable	- Hospitals. - Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels. - Buildings used for dwelling houses, student halls of residence, shopping establishments, nightclubs, and hotels. - Non-residential uses for health services, nurseries and educational establishments. - Landfill and sites used for waste management facilities for hazardous waste 20. - Sites used for holiday or short-term caravans and camping, subject to a specific warning and evacuation plan.
Less Vulnerable	- Buildings used for shops, financial, professional and other services, restaurants and cafes, food takeaways, offices, general industry, storage and distribution, non-essential retailers not included in 'more vulnerable', and assembly and leisure. - Land and buildings used for agriculture and forestry. - Waste treatment (except landfill and hazardous waste facilities). - Minerals working and processing (except for sand and gravel working). - Water treatment plants. - Sewage treatment plants (if adequate pollution control measures are in place).
Water-compatible Development	- Flood control infrastructure. - Water transmission infrastructure and pumping stations. - Sewage transmission infrastructure and pumping stations. - Docks, marinas and wharves. - Navigation facilities. - MCD defence installations. - Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location. - Water-based recreation (excluding sleeping accommodation). - Leisure and coastalguard stations. - Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. - Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.

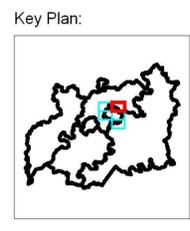


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Project- **GLOUCESTERSHIRE STRATEGIC FLOOD RISK ASSESSMENT**

Tile B2- **STRATEGIC FLOOD RISK MAP SHOWING FLOODING FROM ALL SOURCES CHELTENHAM BOROUGH COUNCIL**

Drawn By	- A J Bryan	Revision	-	Drawing Scale	- 1:10,000	Drawing No.	- WB/GLSD/DRAWING - 038
Checked By	- B L Dunn	Status	-	Sheet No.	- 2 of 5	Date	- 26 March 2008
Approved By	- J R Parkin	Status	DRAFT	Plot Scale	- 1:1 @ A1	Issuing Office	- Birmingham



NB: The Environment Agency has not produced Flood Zones for catchments with an area less than 3km². In such instances fluvial flood risk is present but is not illustrated.

Legend:-

	Council Boundary		Recorded Flooding - Impounded Water Bodies
	Main River Centreline		Recorded Flooding - Artificial Drainage
	Flood Zone 2 (Medium Probability)		Recorded Flooding - Surface Water
	Flood Zone 3a (High Probability)		Recorded Flooding - Fluvial
	Flood Zone 3b (Functional Floodplain) (Flood Zone 3b is shown to equal Flood Zone 3a where no data exists to differentiate)		Recorded Flooding - Unknown
	Canal Embankments		Residual Risk



PPS25: Flood Zones Definition

<p>Zone 1 Low Probability</p> <p>Definition This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%).</p> <p>Appropriate uses All uses of land are appropriate in this zone.</p> <p>FRA requirements For development proposals on sites comprising one hectare or above the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water runoff, should be incorporated in a FRA. This need only be met unless the factors above or other local considerations require particular attention. See Annex E for minimum requirements.</p> <p>Policy aims In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of sustainable drainage techniques.</p>
<p>Zone 2 Medium Probability</p> <p>Definition This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% - 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5% - 0.1%) in any year.</p> <p>Appropriate uses The water-compatible, less vulnerable and more vulnerable uses of land and essential infrastructure in Table D.2 are appropriate in this zone. Subject to the Sequential Test being applied, the highly vulnerable uses in Table D.2 are only appropriate in this zone if the Exception Test (see para. D.3) is passed.</p> <p>FRA requirements All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.</p> <p>Policy aims In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques.</p>
<p>Zone 3a High Probability</p> <p>Definition This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (1% or greater) or a 1 in 200 or greater annual probability of flooding from the sea (0.5% or greater) in any year.</p> <p>Appropriate uses The water-compatible and less vulnerable uses of land in Table D.2 are appropriate in this zone. The highly vulnerable uses in Table D.2 should not be permitted in this zone. The more vulnerable and essential infrastructure uses in Table D.2 should only be permitted in this zone if the Exception Test (see para. D.3) is passed. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood.</p> <p>FRA requirements All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.</p> <p>Policy aims In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques, and to create space for flooding to occur by restoring functional floodplain and flood flow pathways and by identifying, allocating and safeguarding open space for flood storage.</p>
<p>Zone 3b The Functional Floodplain</p> <p>Definition This zone comprises land where water has to flow or be stored in times of flood. SFRAs should identify this Flood Zone (land which would flood with an annual probability of 1 in 20 (5%) or greater in any year or is designed to flood in an extreme (0.1%) flood, or at another probability to be agreed between the LPA and the Environment Agency, including water conveyance routes).</p> <p>Appropriate uses Only the water-compatible uses and the essential infrastructure listed in Table D.2 that has to be there should be permitted in this zone. It should be designed and constructed to remain operational and safe for users in times of flood, result in no net loss of floodplain storage, not impede water flow, and not increase flood risk elsewhere. Essential infrastructure in this zone should pass the Exception Test.</p> <p>FRA requirements All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.</p> <p>Policy aims In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques, and to relocate existing development to land with a lower probability of flooding.</p>

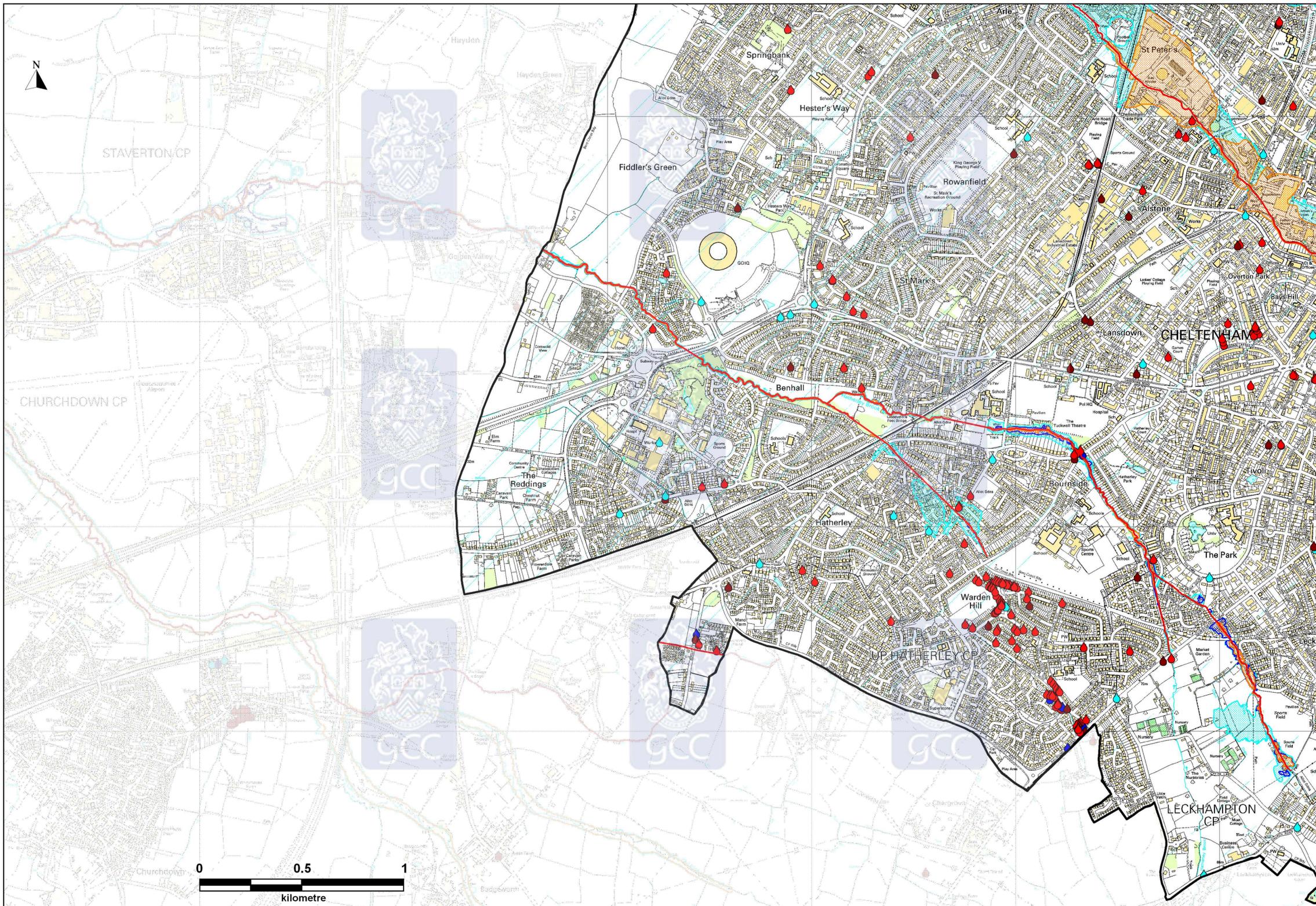
PPS25: Flood Risk Vulnerability and Flood Zone "Compatibility"

Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception Test Required	✓	✓
Zone 3a	Exception Test Required	✓	✗	Exception Test Required	✓
Zone 3b (Functional Floodplain)	Exception Test Required	✓	✗	✗	✗

✓ : Development is appropriate
✗ : Development should not be permitted

PPS25: Flood Risk Vulnerability Classification

Essential Infrastructure	- Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk, and strategic utility infrastructure, including electricity generating power stations and gas and primary substations.
Highly Vulnerable	- Police stations, Ambulance stations and Fire stations and Command Centres and telecommunications installations required to be operational during flooding. - Emergency dispersal points. - Basement dwellings. - Caravans, mobile homes and park homes intended for permanent residential use. - Installations requiring hazardous substances consent, 19.
More Vulnerable	- Hospitals. - Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels. - Buildings used for dwelling houses, student halls of residence, striking establishments, nightclubs, and hotels. - Non-residential uses for health services, nurseries and educational establishments. - Landfill and sites used for waste management facilities for hazardous waste 20. - Sites used for holiday or short let caravans and camping, subject to a specific warning and evacuation plan.
Less Vulnerable	- Buildings used for shops, financial, professional and other services, restaurants and cafes, food takeaways, offices, general industry, storage and distribution, non-essential retailers not included in more vulnerable, and assembly and leisure. - Land and buildings used for agriculture and forestry. - Minerals working and processing (except for sand and gravel working). - Water treatment plants. - Sewage treatment plants (if adequate pollution control measures are in place).
Water-compatible Development	- Flood control infrastructure. - Water transmission infrastructure and pumping stations. - Sewage transmission infrastructure and pumping stations. - Land and gravel workings. - Docks, marinas and wharves. - Navigation facilities. - MCD defence installations. - Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location. - Water based recreation (excluding sleeping accommodation). - Leisure and coasteast stations. - Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. - Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.



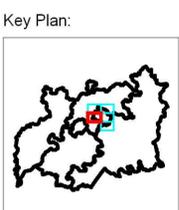
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Project- **GLOUCESTERSHIRE STRATEGIC FLOOD RISK ASSESSMENT**

Tile B3- **STRATEGIC FLOOD RISK MAP SHOWING FLOODING FROM ALL SOURCES CHELTENHAM BOROUGH COUNCIL**

Rev.	By	Date	Description
A	MJ Grogan	12/09/08	Canal embankments and associated residual risk added

Drawn By	A J Bryan	Revision	-	Drawing Scale	1:10,000	Drawing No.	WB/GLOS/DRAWING - 038
Checked By	B L Dunn	Status	DRAFT	Sheet No.	3 of 5	Date	26 March 2008
Approved By	J R Parkin	Plot Scale	1:1 @ A1	Issuing Office	Birmingham		



Legend:-

- Council Boundary
- Main River Centreline
- Flood Zone 2 (Medium Probability)
- Flood Zone 3a (High Probability)
- Flood Zone 3b (Functional Floodplain)
- Recorded Flooding - Impounded Water Bodies
- Recorded Flooding - Artificial Drainage
- Recorded Flooding - Surface Water
- Recorded Flooding - Fluvial
- Recorded Flooding - Unknown
- Canal Embankments
- Residual Risk

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PPS25: Flood Zones Definition

Zone 1 Low Probability
Definition: This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%).
Appropriate uses: All uses of land are appropriate in this zone.
FRA requirements: For development proposals on sites comprising one hectare or above the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water runoff, should be incorporated in a FRA. This need only be met unless the factors above or other local considerations require particular attention. See Annex E for minimum requirements.
Policy aims: In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of sustainable drainage techniques.

Zone 2 Medium Probability
Definition: This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (0.1% - 0.1% in any year).
Appropriate uses: The water-compatible, less vulnerable and more vulnerable uses of land and essential infrastructure in Table D.2 are appropriate in this zone. Subject to the Sequential Test being applied, the highly vulnerable uses in Table D.2 are only appropriate in this zone if the Exception Test (see para. D.3) is passed.
FRA requirements: All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.
Policy aims: In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques.

Zone 3a High Probability
Definition: This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (1% or a 1 in 200 or greater annual probability of flooding from the sea (1%)) in any year.
Appropriate uses: The water-compatible and less vulnerable uses of land in Table D.2 are appropriate in this zone. The highly vulnerable uses in Table D.2 should not be permitted in this zone. The more vulnerable and essential infrastructure uses in Table D.2 should only be permitted in this zone if the Exception Test (see para. D.3) is passed. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood.
FRA requirements: All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.
Policy aims: In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood.

Zone 3b The Functional Floodplain
Definition: This zone comprises land where water has to flow or be stored in times of flood. SFRAs should identify this Flood Zone (and which would flood with an annual probability of 1 in 20 (5%) or greater in any year or is designed to flood in an embankment (0.1% flood, or at another probability to be agreed between the LPA and the Environment Agency, including water conveyance routes).
Appropriate uses: Only the water-compatible uses and the essential infrastructure listed in Table D.2 that has to be there should be permitted in this zone. It should be designed and constructed to remain operational and safe for users in times of flood, result in no net loss of floodplain storage, not impede water flow, and not increase flood risk elsewhere. Essential infrastructure in this zone should pass the Exception Test.
FRA requirements: All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.
Policy aims: In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques, and relocate existing development to land with a lower probability of flooding.

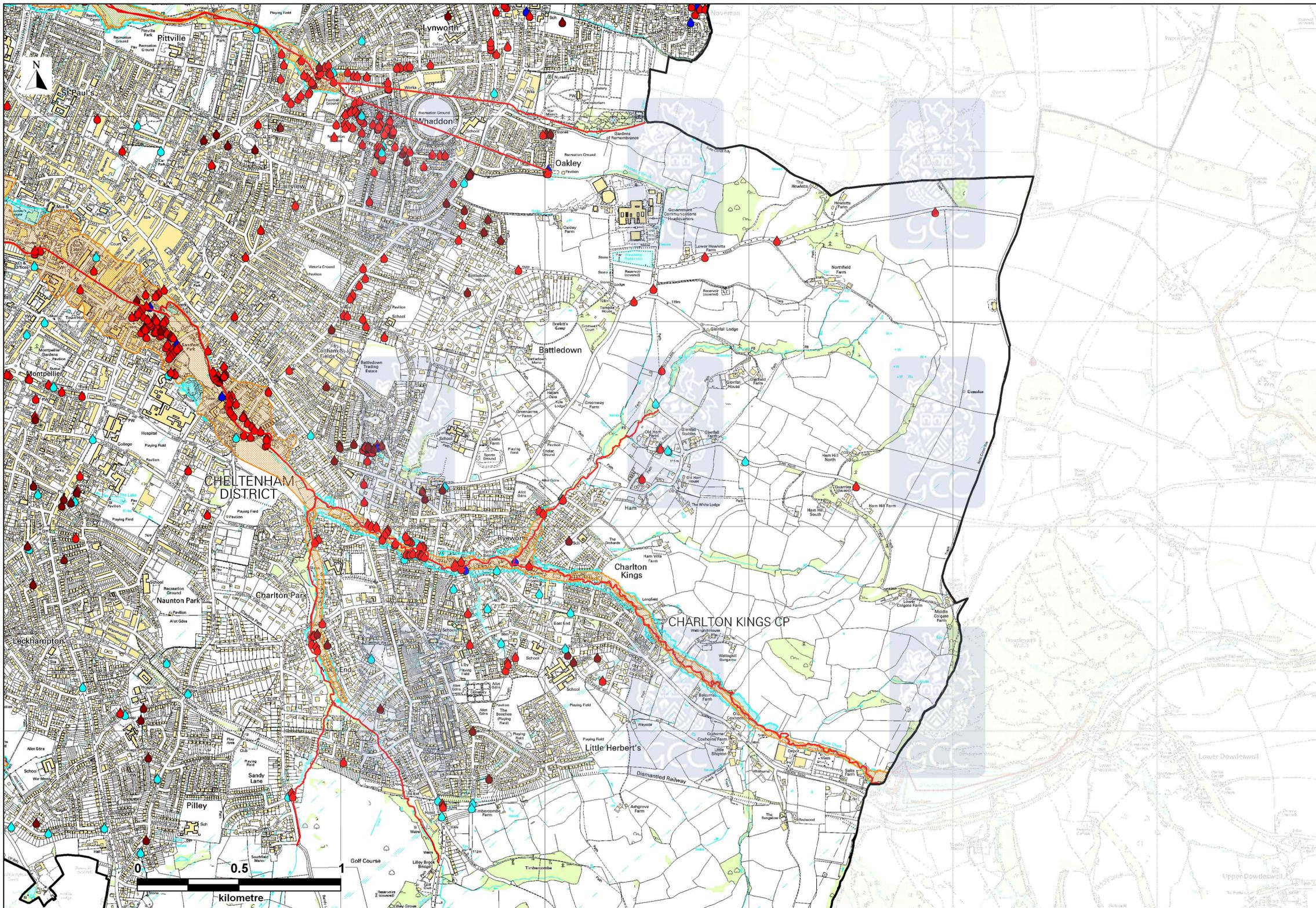
PPS25: Flood Risk Vulnerability and Flood Zone "Compatibility"

Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception Test Required	✓	✓
Zone 3a	Exception Test Required	✓	✗	Exception Test Required	✓
Zone 3b (Functional Floodplain)	Exception Test Required	✓	✗	✗	✗

✓ : Development is appropriate
✗ : Development should not be permitted

PPS25: Flood Risk Vulnerability Classification

Essential Infrastructure	Essential transport infrastructure (including mass evacuation routes) which cross the area at risk, and strategically important infrastructure, including electricity generating power stations and gas and primary substations.
Highly Vulnerable	- Police stations, Ambulance stations and Fire stations and Command Centres and telecommunications installations required to be operational during flooding - Emergency dispersal points - Basement dwellings - Caravans, mobile homes and park homes intended for permanent residential use - Installations requiring hazardous substances consent 19
More Vulnerable	- Hospitals - Residential institutions such as residential care homes, children's homes, social services homes, prisons and hotels. - Buildings used for dwelling houses, student halls of residence, striking establishments, nightclubs, and hotels. - Non-residential uses for health services, nurseries and educational establishments. - Landfill and sites used for waste management facilities for hazardous waste 20 - Sites used for holiday or short let caravans and camping, subject to a specific warning and evacuation plan.
Less Vulnerable	- Buildings used for shops, financial, professional and other services, restaurants and cafes, food takeaways, offices, general industry, storage and distribution, non-residential institutions not included in 'more vulnerable', and assembly and leisure. - Land and buildings used for agriculture and forestry. - Waste treatment (except landfill and hazardous waste facilities). - Mineral working and processing (except for sand and gravel working). - Water treatment plants. - Sewage treatment plants (if adequate pollution control measures are in place).
Water-compatible Development	- Flood control infrastructure - Water transmission infrastructure and pumping stations - Sewage transmission infrastructure and pumping stations. - Sand and gravel workings - Docks, marinas and wharves - Navigation facilities - MCA defence installations - Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location - Water-based recreation (excluding sleeping accommodation) - Leisure and coasteast stations - Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. - Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.

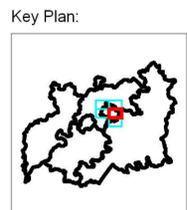


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Project- **GLOUCESTERSHIRE STRATEGIC FLOOD RISK ASSESSMENT**

Tile B4:- **STRATEGIC FLOOD RISK MAP SHOWING FLOODING FROM ALL SOURCES CHELTENHAM BOROUGH COUNCIL**

Drawn By	A J Bryan	Revision	-	Drawing Scale	1:10,000	Drawing No.	WB/GLOS/DRAWING - 038
Checked By	B L Dunn	Status	DRAFT	Sheet No.	4 of 5	Date	26 March 2008
Approved By	J R Parkin	Plot Scale	1:1 @ A1	Issuing Office	Birmingham		



Legend:-

	Council Boundary		Recorded Flooding - Impounded Water Bodies		Canal Embankments
	Main River Centreline		Recorded Flooding - Artificial Drainage		Residual Risk
	Flood Zone 2 (Medium Probability)		Recorded Flooding - Surface Water		
	Flood Zone 3a (High Probability)		Recorded Flooding - Fluvial		
	Flood Zone 3b (Functional Floodplain)		Recorded Flooding - Unknown		

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PPS25: Flood Zones Definition

<p>Zone 1 Low Probability</p> <p>Definition This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%).</p> <p>Appropriate uses All uses of land are appropriate in this zone.</p> <p>FRA requirements For development proposals on sites comprising one hectare or above the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water runoff, should be incorporated in a FRA. This need only be met unless the factors above or other local considerations require particular attention. See Annex E for minimum requirements.</p> <p>Policy aims In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of sustainable drainage techniques.</p>
<p>Zone 2 Medium Probability</p> <p>Definition This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% - 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5% - 0.1%) in any year.</p> <p>Appropriate uses The water-compatible, less vulnerable and more vulnerable uses of land and essential infrastructure in Table D.2 are appropriate in this zone. Subject to the Sequential Test being applied, the highly vulnerable uses in Table D.2 are only appropriate in this zone if the Exception Test (see para. D.2.3) is passed.</p> <p>FRA requirements All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.</p> <p>Policy aims In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques.</p>
<p>Zone 3a High Probability</p> <p>Definition This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (1%) or a 1 in 200 or greater annual probability of flooding from the sea (0.5%) in any year.</p> <p>Appropriate uses The water-compatible and less vulnerable uses of land in Table D.2 are appropriate in this zone. The highly vulnerable uses in Table D.2 should not be permitted in this zone. The more vulnerable and essential infrastructure uses in Table D.2 should only be permitted in this zone if the Exception Test (see para. D.2.3) is passed. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood.</p> <p>FRA requirements All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.</p> <p>Policy aims In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques. It also includes existing development to land with a lower probability of flooding, and: - create space for flooding to occur by restoring functional floodplain and flood flow pathways and by identifying, allocating and safeguarding open space for flood storage.</p>
<p>Zone 3b The Functional Floodplain</p> <p>Definition This zone comprises land where water has to flow or be stored in times of flood. SFRAs should identify this Flood Zone (and which would flood with an annual probability of 1 in 20 (5%) or greater in any year or is designed to flood in an extreme (0.1%) flood, or at another probability to be agreed between the LPA and the Environment Agency, including water conveyance routes).</p> <p>Appropriate uses Only the water-compatible uses and the essential infrastructure listed in Table D.2 that has to be there should be permitted in this zone. It should be designed and constructed to remain operational and safe for users in times of flood. - result in net loss of floodplain storage; - not impede water flow; and - not increase flood risk elsewhere. Essential infrastructure in this zone should pass the Exception Test.</p> <p>FRA requirements All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.</p> <p>Policy aims In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques; and relocate existing development to land with a lower probability of flooding.</p>

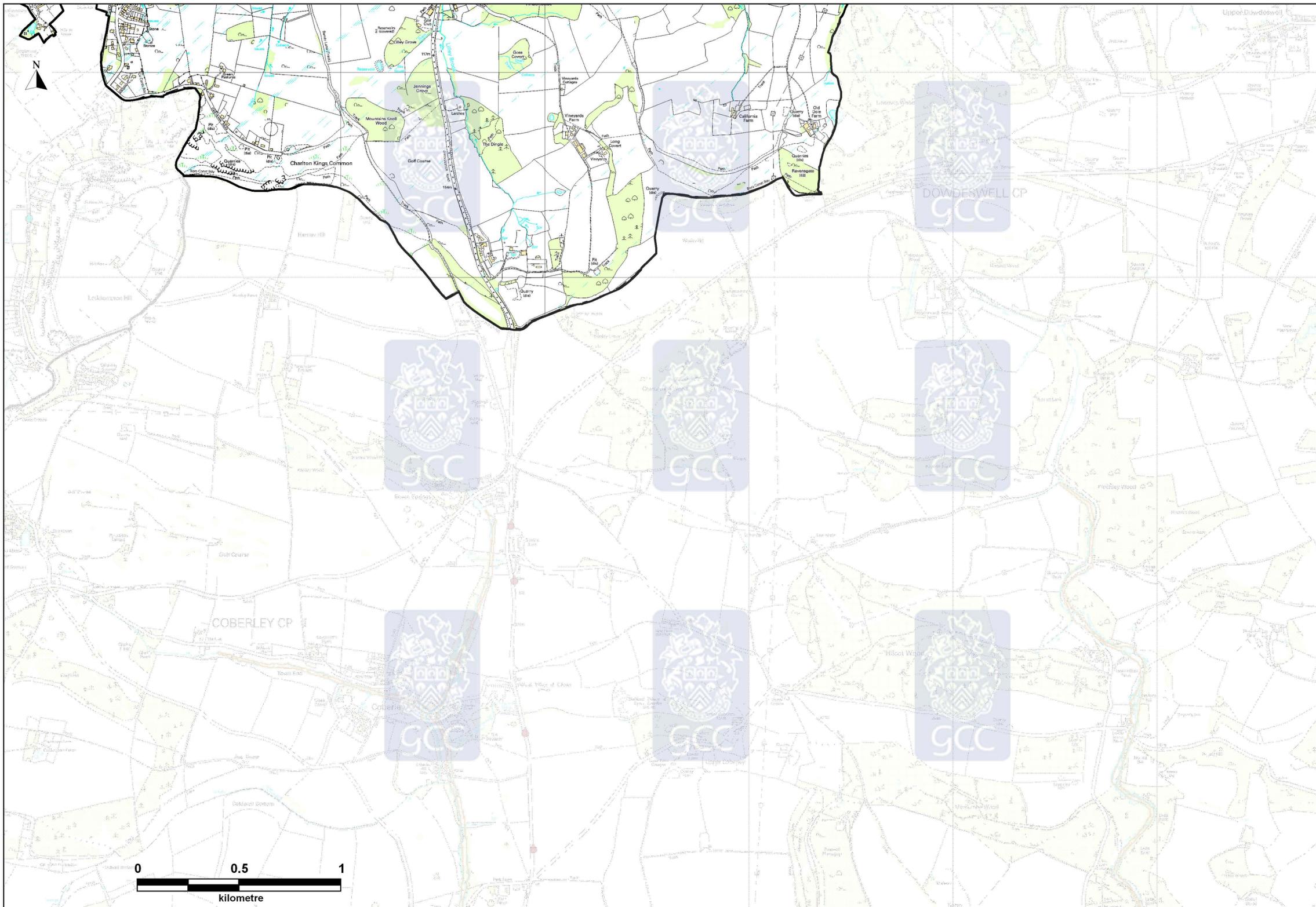
PPS25: Flood Risk Vulnerability and Flood Zone "Compatibility"

Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception Test Required	✓	✓
Zone 3a	Exception Test Required	✓	✗	Exception Test Required	✓
Zone 3b (Functional Floodplain)	Exception Test Required	✓	✗	✗	✗

- ✓ : Development is appropriate
- ✗ : Development should not be permitted

PPS25: Flood Risk Vulnerability Classification

Essential Infrastructure	- Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk, and strategic utility infrastructure, including electricity generating power stations and grid and primary substations.
Highly Vulnerable	- Police stations, Ambulance stations and Fire stations and Command Centres and telecommunications installations required to be operational during flooding. - Emergency dispersal points. - Basement dwellings. - Caravans, mobile homes and park homes intended for permanent residential use. - Installations requiring hazardous substances consent 19.
More Vulnerable	- Hospitals. - Residential institutions such as residential care homes, children's homes, social services homes, prisons and hotels. - Buildings used for dwelling houses, student halls of residence, shopping establishments, nightclubs, and hotels. - Non-residential uses for health services, nurseries and educational establishments. - Landfill sites used for waste management facilities for hazardous waste 20. - Sites used for holiday or short let caravans and camping, subject to a specific warning and evacuation plan.
Less Vulnerable	- Buildings used for shops, financial, professional and other services, restaurants and cafes, food takeaways, offices, general industry, storage and distribution, non-residential institutions not included in 'more vulnerable', and assembly and leisure. - Land and buildings used for agriculture and forestry. - Waste treatment (except landfill) and hazardous waste facilities). - Minerals working and processing (except for sand and gravel working). - Water treatment plants. - Sewage treatment plants (if adequate pollution control measures are in place).
Water-compatible Development	- Flood control infrastructure. - Water transmission infrastructure and pumping stations. - Sewage transmission infrastructure and pumping stations. - Sand and gravel workings. - Docks, marinas and wharves. - Navigation facilities. - MCD defence installations. - Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location. - Water-based recreation (excluding sleeping accommodation). - Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. - Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.



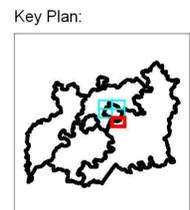
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Project- **GLOUCESTERSHIRE STRATEGIC FLOOD RISK ASSESSMENT**

Tile B5- **STRATEGIC FLOOD RISK MAP SHOWING FLOODING FROM ALL SOURCES CHELTENHAM BOROUGH COUNCIL**

Rev.	By	Date	Description
A	MJ Grogan	12/08/08	Canal embankments and associated residual risk added

Drawn By	: A J Bryan	Revision	-	Drawing Scale	: 1:10,000	Drawing No.	: WB/GLSO/DRAWING - 038
Checked By	: B L Dunn	Status	DRAFT	Sheet No.	: 5 of 5	Date	: 26 March 2008
Approved By	: J R Parkin	Plot Scale	: 1:1 @ A1	Issuing Office	: Birmingham		



NB: The Environment Agency has not produced Flood Zones for catchments with an area less than 3km². In such instances fluvial flood risk is present but is not illustrated.

Legend:-

	Council Boundary		Recorded Flooding - Impounded Water Bodies
	Main River Centreline		Recorded Flooding - Artificial Drainage
	Flood Zone 2 (Medium Probability)		Recorded Flooding - Surface Water
	Flood Zone 3a (High Probability)		Recorded Flooding - Fluvial
	Flood Zone 3b (Functional Floodplain) (Flood Zone 3b is shown to equal Flood Zone 3a where no data exists to differentiate)		Recorded Flooding - Unknown
	Canal Embankments		Residual Risk



PPS25: Flood Zones Definition

Flood Zone	Annual Probability of Flooding
Zone 1 Low Probability	Less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%)
Zone 2 Medium Probability	Between 1 in 100 and 1 in 1000 annual probability of river or sea flooding in any year (0.1% to 1%)
Zone 3a High Probability	Greater than 1 in 100 annual probability of river or sea flooding in any year (>1%)
Zone 3b The Functional Floodplain	Land which would flood with an annual probability of 1 in 20 (5%) or greater in any year or is designed to flood in an emergency (0.1% flood, or at another probability to be agreed between the LPA and the Environment Agency, including water conveyance routes)

Zone	Definition	Appropriate Uses	FRA requirements	Policy aims
Zone 1	For development proposals on sites comprising one hectare or above the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water runoff, should be incorporated in a FRA. This need only be level unless the factors above or other local considerations require particular attention. See Annex E for minimum requirements.	All uses of land are appropriate in this zone.	All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of sustainable drainage techniques.
Zone 2	The water-compatible, less vulnerable and more vulnerable uses of land and essential infrastructure in Table D.2 are appropriate in this zone. Subject to the Sequential Test being applied, the highly vulnerable uses in Table D.2 are only appropriate in this zone if the Exception Test (see para. D.3) is passed.	The water-compatible, less vulnerable and more vulnerable uses of land and essential infrastructure in Table D.2 are appropriate in this zone. Subject to the Sequential Test being applied, the highly vulnerable uses in Table D.2 are only appropriate in this zone if the Exception Test (see para. D.3) is passed.	All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques.
Zone 3a	The water-compatible and less vulnerable uses of land in Table D.2 are appropriate in this zone. The highly vulnerable uses in Table D.2 should not be permitted in this zone. The more vulnerable and essential infrastructure uses in Table D.2 should only be permitted in this zone if the Exception Test (see para. D.3) is passed. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood.	Only the water-compatible and less vulnerable uses of land in Table D.2 are appropriate in this zone. The highly vulnerable uses in Table D.2 should not be permitted in this zone. The more vulnerable and essential infrastructure uses in Table D.2 should only be permitted in this zone if the Exception Test (see para. D.3) is passed. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood.	All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques. i. indicate existing development to land in zones with a lower probability of flooding, and ii. create space for flooding to occur by restoring functional floodplain and flood flow pathways and by identifying, allocating and safeguarding open space for flood storage.
Zone 3b	Essential infrastructure in this zone should pass the Exception Test.	Only the water-compatible uses and the essential infrastructure listed in Table D.2 that has to be there should be permitted in this zone. It should be designed and constructed to remain operational and safe for users in times of flood, result in no net loss of floodplain storage, not impede water flow, and not increase flood risk elsewhere.	All development proposals in this zone should be accompanied by a FRA. See Annex E for minimum requirements.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques, and relocate existing development to land with a lower probability of flooding.

PPS25: Flood Risk Vulnerability and Flood Zone "Compatibility"

Flood Zone	Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Zone 1	✓	✓	✓	✓	✓	✓
Zone 2	✓	✓	✓	Exception Test Required	✓	✓
Zone 3a	Exception Test Required	✓	✓	✗	Exception Test Required	✓
Zone 3b (Functional Floodplain)	Exception Test Required	✓	✓	✗	✗	✗

✓ : Development is appropriate
 ✗ : Development should not be permitted

PPS25: Flood Risk Vulnerability Classification

Flood Risk Vulnerability Classification	Essential Infrastructure
Highly Vulnerable	- Police stations, Ambulance stations and Fire stations and Command Centres and telecommunications installations required to be operational during flooding - Emergency dispersal points - Basement dwellings - Caravans, mobile homes and park homes intended for permanent residential use - Installations requiring hazardous substances consent, 19
More Vulnerable	- Hospitals - Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels - Buildings used for dwelling houses, student halls of residence, shopping establishments, nightclubs, and hotels - Non-residential uses for health services, nurseries and educational establishments - Landfill sites used for waste management facilities for hazardous waste (1) - Sites used for holiday or short-term caravans and camping, subject to a specific warning and evacuation plan
Less Vulnerable	- Buildings used for shops, financial, professional and other services, restaurants and cafes, hot food takeaways, offices, general industry, storage and distribution, non-essential restaurants not included in 'more vulnerable', and assembly and leisure - Land and buildings used for agriculture and forestry - Waste treatment (except landfill) and hazardous waste facilities - Minerals working and processing (except for sand and gravel working) - Water treatment plants - Sewage treatment plants (if adequate pollution control measures are in place)
Water-compatible Development	- Flood control infrastructure - Water transmission infrastructure and pumping stations - Sewage transmission infrastructure and pumping stations - Docks, marinas and wharves - Navigation facilities - MCD defence installations - Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location - Water-based recreation (excluding sleeping accommodation) - Leisure and coastal stations - Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms - Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan