New CSO chamber to limit discharge to Formula A (3.18m³/s) to GC Foul, spilling excess flows to GC Storm. Overflow pipeline from CSO to GC stormcell.

9C Trunk Sewer Catchment
Duplication of trunk sewer required by 2011
New CSO and 11,000m³ storage tank at Castleknock
Syphons under River Liffey throttle flows to 2.72m³/s.
2031 Additional 12,000m³ storage at Castleknock.

Flow through River Liffey twin syphons to be 2.72m³/s by ensuring both pipelines operational

New pumping station at Heuston Station diverting City Centre flows Max discharge 2m³/s 2011

Swap over foul and storm cell in GCTS by diverting all incoming sewers 2011

Duplicate 9B/9C connecting trunk sewer at Dolphin Road 2011

Duplicate 9B Sewer Ballymount To Davitt Road 2011

4 No Sewer diversions from R&P High Level catchment Into GCTS ‘New Foul Cell to relieve flooding 2011
9C Trunk Sewer Catchment
Duplication of trunk sewer required by 2011
New CSO and 11,000m³ storage tank at Castleknock
Syphons under River Liffey throttle flows to 2.72m³/s.
2031 Additional 12,000m³ storage at Castleknock.

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2031 Additional 12,000m³ storage at Castleknock.

Phoenix Park

River Liffey

Intercept City Centre flows at Heuston Station. Max Discharge 2m³/s to
New Liffey Sewer for 2011

Flow through River Liffey twin syphons to be 2.72m³/s by ensuring both
pipelines operational.

2011 Liffey Valley Interceptor
Sewer Ringsend to Islandbridge

Intercept City Centre CSO's and Docklands flows

New CSO chambers passing Formula A
to foul with excess spilling to storm cell 2011

Duplicate 9B/9C connecting trunk sewer at Dolphin Road 2011

Duplicate 9B Sewer Ballymount
To Davitt Road 2011

New CSO chamber to limit discharge to formula A
(3.18m³/s) to GC Foul, spilling excess flows to GC
Storm. Overflow pipeline from CSO to GCTS stormcell.

Docklands PS 0.6m³/s and 5000m³ storm
Storage 2011

Rathcoole

2011 Liffey Valley Interceptor Sewer Ringsend to Islandbridge

2031 Trunk Sewer from Esker and Lucan Lower Level

2031 Liffey Valley Interceptor
Sewer to Islandbridge

New CSO chamber to limit discharge to formula A
(3.18m³/s) to GC Foul, spilling excess flows to GC
Storm. Overflow pipeline from CSO to GCTS stormcell.

4 No Sewer diversions from R&P High Level catchment to relieve flooding 2011
### 9B Trunk Sewer Catchment
- Duplication of trunk sewer required by 2011
- New CSO and 11,000m³ storage tank at Castleknock 2031
- Additional 12,000m³ storage tank at Castleknock

### 9C Trunk Sewer Catchment
- Duplication of trunk sewer required by 2011
- New CSO and 11,000m³ storage tank at Castleknock 2031
- Duplication of trunk sewer at Dolphin road 2011

### Flow through River Liffey
- Twin syphons to be 2.72m³/s by ensuring both pipelines operational

### New pumping station at Heuston Station
- Diverting City Centre flows
- Max discharge 2m³/s 2011

### Docklands PS
- 0.6m³/s and 5000m³ storm Storage 2011

### Note:
All Routes and Site Locations are schematic only and to be confirmed by later studies.

### New Rising Main to Orbital Sewer 2031
- Expansion to 450,000 PE

### New Orbital Sewer Swords to Portrane 2031
- Partial Diversion of Swords and Malahide Catchments to Orbital Sewer 2031

### New Orbital Sewer Swords to Portrane 2031
- Overflow pipeline from Ballymount CSO to GCTS Stormcell
- New CSO chamber to limit discharge of 2m³/s to GCTS Foul, spilling excess flows to GCTS Storm 2011
- 11,000m³ storage at Ballymount 2011
- New pumping station at Grange
- New rising main to orbital sewer 2031
- New pumping station at Grange

### MLPS
- New Orbital Sewer Swords to Portrane 2031
- Partial Diversion of Swords and Malahide Catchments to Orbital Sewer 2031

### Swords WwTW
- Immediate Upgrade to 2.16m PE

### Kilbride Pumping Station
- New pumping station at Heuston Station diverting City Centre flows
- Max discharge 2m³/s 2011
New CSO chamber to limit discharge of 2m³/s to GC foul, spilling excess flows to GCTS Stormcell. 11,000m³ storage at Ballymount 2011

Docklands PS 0.6m³/s and 5000m³ storm Storage 2011

New rising main to orbital sewer 2031

Partial diversion of Swords and Malahide catchments to orbital sewer 2031

Immediate upgrade to 2.16m PE

New CSO and 11,000m³ storage tank at Castleknock 2031. Additional 12,000m³ storage tank at Castleknock.

Overflow pipeline from Ballymount CSO to GCTS Stormcell.

Duplicate 9B/9C connecting trunk sewer at Dolphin road 2011.

Note: All routes and site locations are schematic only and to be confirmed by later studies.
9B Trunk Sewer Catchment

2031 Pumping Station and Rising main to transfer 9B Flows to Orbital sewer & 15,600m³ storage.

2011 New CSO chamber to limit discharge of 2m³/s to GC Foul, spilling excess flows to GCTS Stormcell. 11,000m³ storage at Ballymount.

Overflow pipeline from Ballymount CSO to GCTS Stormcell.

4 No Sewer diversions from R&P High Level catchment to relieve flooding 2011.

Duplicate 9B/9C connecting trunk sewer at Dolphin road 2011.
River Liffey
River Tolka

**4 No Sewer diversions from R&P High Level catchment into GCTS foul cell 2011**

**9C Trunk Sewer Catchment**
Duplication of trunk sewer required by 2011
New CSO and 11,000m³ storage tank at Castleknock
Additional 12,000m³ storage tank at Castleknock (2031)

**Docklands PS 0.6m³ and 5000m³ storm Storage 2011**

Liffey Sewer to Intercept 9C and city centre overflows 2031

WwTW

**Ringsend WwTW**

**Swords WwTW**

**Malahide WwTW**

**Sutton Pumping Station**

**MLPS**

**Partial Diversion of Swords and Malahide Catchments to Orbital Sewer 2031**

New pumping station with 6.6m³/s capacity at Grange storm tank
Duplicate storm tank 5000m³ (2031)

New 2.0m³/s capacity pumping station at Irishtown Park pumping to Sutton PS via ‘reversed’ submarine line 2031 (200,000 PE)

New Deep shaft pumping station 2031

**New CSO Chamber at MH 1 and spill over Formula to estuary at Grand Canal Dock**

Partial Diversion of Swords and Malahide Catchments to Orbital Sewer 2031

**Rising Main Grange to Portrane 2031**

Reverse direction of flow in existing 1600mm pipe reversed by lining and pressurising
New duplicate rising main construction combined maximum capacity of 4.6m³/s

**New CSO Chamber at MH 1 and spill over Formula to estuary at Grand Canal Dock**

New development flow Formula A collection point at Grange Castle discharging all flow to the GCTS

**Note:**
All Routes and Site Locations are schematic only and to be confirmed by later studies.
**9C Trunk Sewer Catchment**

- Duplication of trunk sewer required by 2011
- New CSO and 11,000m³ storage tank at Castleknock
- Additional 12,000m³ storage tank at Castleknock (2031)

**Docklands PS**

- 0.6m³ and 5000m³ storm storage 2011

**MLPS**

- New pumping station with 6.6m³/s capacity at Grange storm tank
- Duplicate storm tank 5000m³ (2031)

**Ringsend WwTW**

- New CSO Chamber at MH 1 and spill over Formula to estuary at Grand Canal Dock
- Partial Diversion of Swords and Malahide Catchments to Orbital Sewer 2031

**Sutton Pumping Station**

- New pumping station at Heuston Station, max discharge 2m³/s. Pump flows to head of GCTS 2011
- Reverse direction of flow in submarine pipeline. Max flow from Ringsend to Sutton PS = 2.0m³/s 2031
- New duplicate rising main constructed to give combined maximum capacity of 4.6m³/s 2031

**Malahide WwTW**

- Upsize 9B/9C connecting trunk sewer at Dolphin Road 2011

**Swords WwTW**

- New foul segment within GCTS Storm cell. 2031

**Rising Main Grange to Portrane 2031**

- New development flow Formula A collection point at Grange Castle discharging all flow to the GCTS

**Note:**
All Routes and Site Locations are schematic only and to be confirmed by later studies.