


## North City Water Supply Scheme Phase 1&2 and Clontarf Flood Defence Scheme

Presentation to  
Dublin City Council  
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Tom Leahy  
Executive Manager  
(Engineering)

## Clontarf Flood Protection Project

Clontarf Flood Protection Project is all about protecting people

- Their lives
- Their homes
- Their livelihoods

## Clontarf has flooded before

- In February 2002 a 1/60 year event devastated the area.
- At risk of a repeat of this event every year
- Doing nothing to protect people of Clontarf is not an option

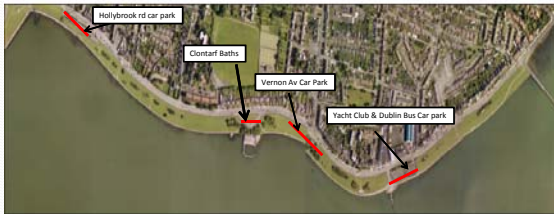
## 2003 – 2005 Coastal Flood Protection Project

- Flood Maps of area at risk
- Tidal surge early warning system

## 2003-2005 Outline Design

- Range of potential solutions examined to protect people of Clontarf
- Recommended option is NOT a 9 Ft wall for 3 Km.
- Recommended option is a landscaped mounding and some limited walls where not possible (e.g. at car parks).

Wall locations( Mounding not possible with car parks)



## Photomontages (sample) of Approved Scheme compared to Bord Pleanala Scheme

- Based on indicative output from Design Review.
- Full Design Review to be confirmed in November and requires assessment by OPW and Dublin City Council that it will provide required level of protection.

## Photomontage Locations

1. Seaview Av
2. Sports ground
3. Oulton Rd
4. Kincora Rd

## Photomontage Locations



Seaview Av



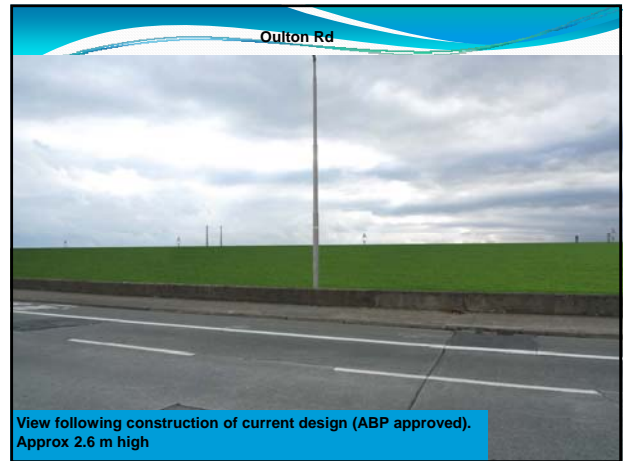
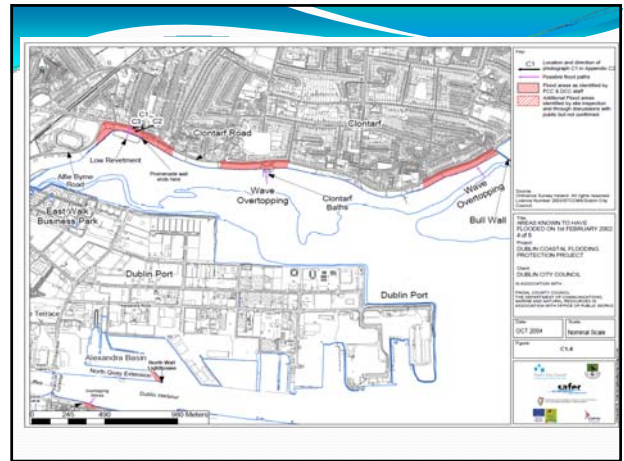
## Coastal Flooding Clontarf 2002



Historical Flooding on Clontarf Road



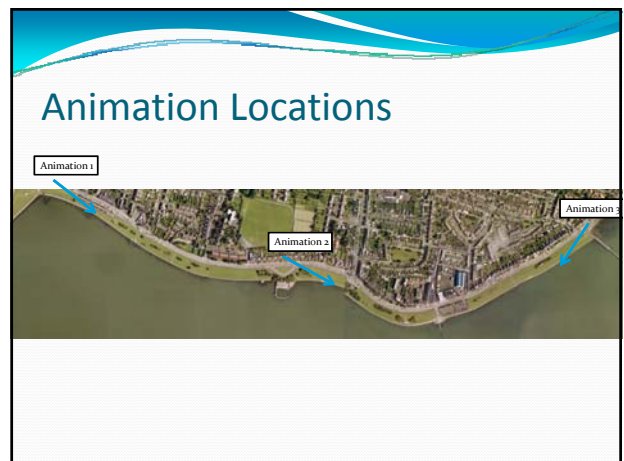






### Animation Locations

1. From Stranville moving East
2. From Clontarf baths moving East
3. From the Bull wall ( wooden Bridge ) moving west



## 2005 – 2007 Detailed Design

- Everyone agrees flood defences in Coastal areas are essential
- Design carried out by International Consultants expert in complexity of coastal design and considered best technical information.
- Design:
  - Predicted sea level 1/200 year storm event
  - Predicted sea level rise over 50 years
  - Impact of wave action in 1/200 year storm
- No point in investing in defences which do not protect people!

## 2007 – 2009 Statutory Process

- EIS to An Bord Pleanala
- Non Technical Summary
- Public Display
- Meetings
- Notified to Residents and Business Associations
- Approved by An Bord Pleanala after detailed consideration

## 2009 – 2010 Funding Approval

- OPW 2011 budget
- DECLG Water Services Investment Programme 2010 to 2012

## 2010 - 2011

- Tendering and Procurement of Contractor
- Plan to construct in 2012-2014
- People fully protected by 2014 after a 7 year long process (2003 – 2011).

2011 Design Review due to concern about height of mounding and enjoyment of promenade

### Confirmed

- Clontarf at high risk of flooding
  - Highest Astronomical tide = 1.99 m. OD
  - 1/200 Storm event still water level = 3.13 m
  - Climate change sea rise to 2055 = 3.34 m. OD
  - Wave height varies 0.5 m. to 0.9 m. due to coast exposure.

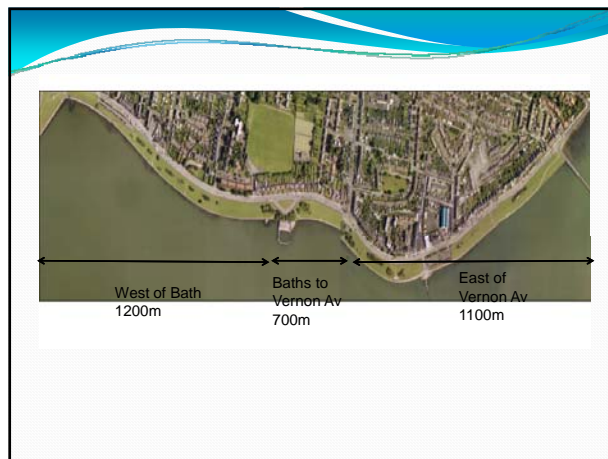
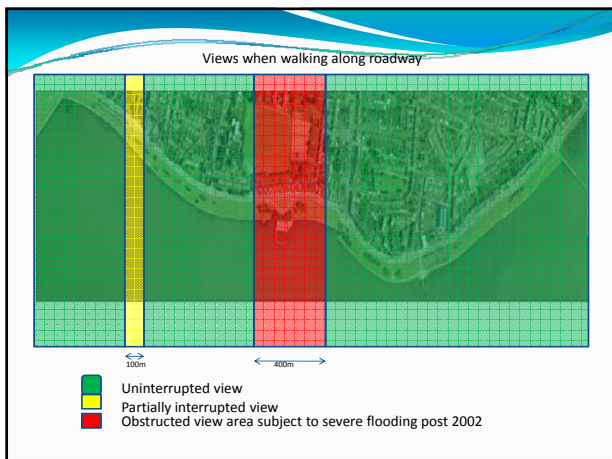
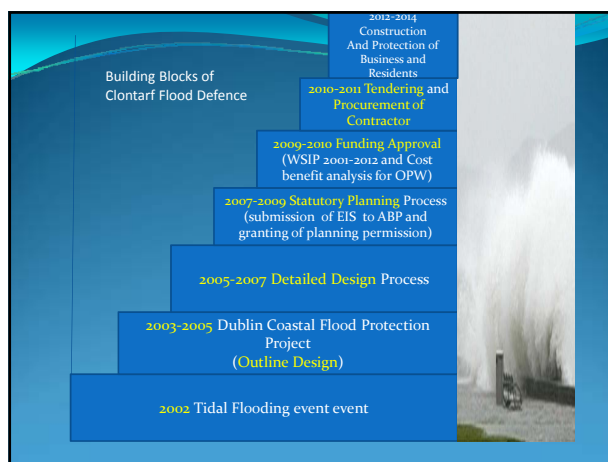
It is possible to reduce height while providing protection to people of Clontarf.

## Summary of Design Review

- Reduced levels will improve views and amenity
- Anything lower will not protect people of Clontarf from Flooding.

## Adaptive Management Approach

- An adaptive management approach should be adopted now, whereby the new defence structures are built with their foundations and layout designed to allow them to be raised in due course, if necessary.
- Ongoing monitoring and maintenance will deal with risks such as settlement of or damage to embankments
- The versatility to allow the defences to be raised in the future, for whatever reason, would ensure that the scheme will provide a 1 in 200 year standard for at least the next 50 years.



Location	May 2006 Height			EIS Design 2007 Height			Design Review 2011 Height		
	Max	Min	Av	Max	Min	Av	Max	Min	Av
West of Baths (1200m)	1.44	0.3	1.03	2.58	0.85	1.75	1.59	0.45	1.18
Baths to Vernon Av (700m)	1.82	0.82	1.41	2.75	1.32	2.09	2.17	1.02	1.71
East of Vernon Av (1100m)	1.15	0.51	.76	1.8	1.01	1.44	1.5	0.71	1.11

Lower Level of mounds recommended in Design Review (November 2011) compared to An Bord Pleanala Approved Scheme

## Next Steps

- Public Briefing and opportunity to make views known
  - Report on Planning and Funding issues to December City Council meeting
- Clontarf Flood Protection Project is all about protecting people**
- Their lives
  - Their homes
  - Their livelihoods