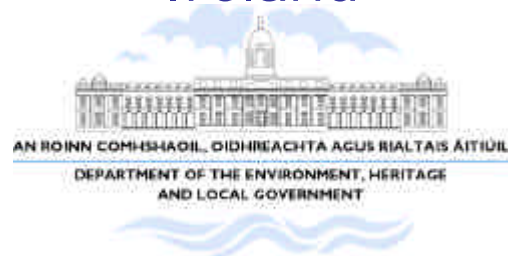




Risk Criteria

European Workshop on WFD &
Hydromorphology
17-19th October 2005

Ireland

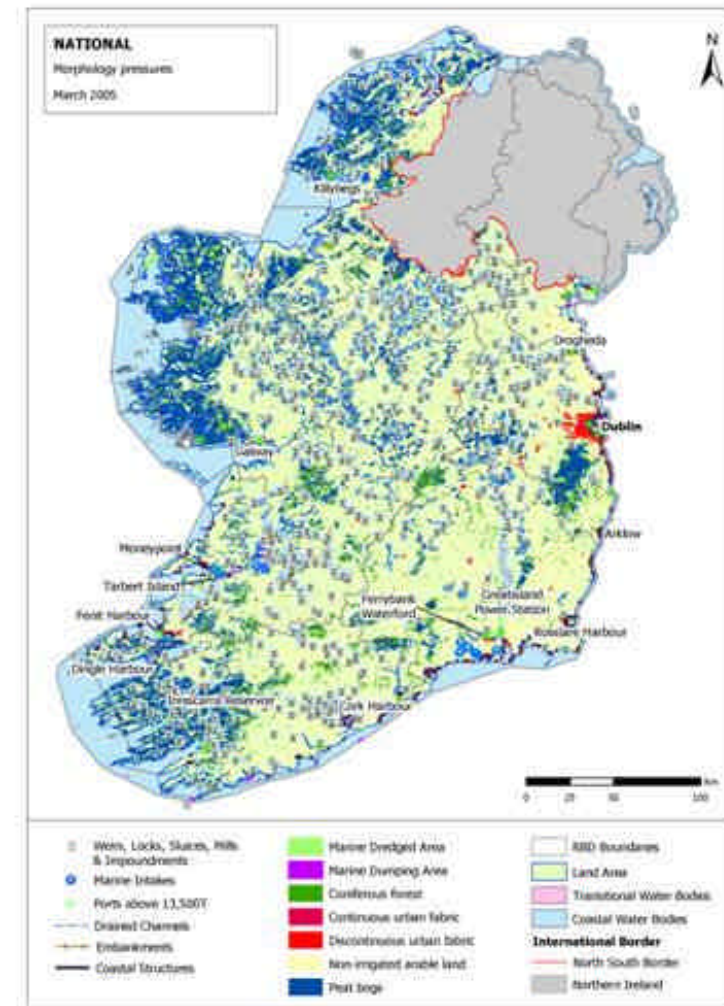




Hydromorphological pressures in Ireland

■ Pressures

- Channelisation & dredging
- Flood protection & embankments
- Impounding (dams)
- Water regulation (locks & weirs)
- Intensive land use (urban, arable, forestry, peat extraction)
- Disposal of dredge spoil
- Coastal defences
- Coastal built structures





Hydromorphological pressures in Ireland

■ 4 Risk Categories

2b Water Body not at risk and available information is comprehensive and / or conclusive	2a Water Body probably not at significant risk but available information could be improved	1b Water Body probably at significant risk	1a Water Body at significant risk
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■ Results of risk assessments

- Rivers - 6% at risk, 34% probably at risk
- Lakes - 18% probably at risk
- Transitional - 15% at risk, 16% probably at risk
- Coastal - 8% at risk, 16% probably at risk

High degree of uncertainty with hydromorphology assessments





Hydromorphological pressures in Ireland

	Pressure	Datasets & Info sources	Measured Attribute	2b	2a	1b	1a
1	Channelisation & Dredging	OPW Channels <i>OPW & Drainage Board work records & plans</i>	Proportion of water body stretch length affected by channelisation work within 500m of stretch.	<5%	5-15%	>15	-
2	Flood Protection & Embankments	OPW Embankments <i>OPW & Drainage Board work records & plans</i>	Proportion of water body stretch bank length affected	<5%	5-15%	15-60%	>60%
3	Impounding (water storage)	Lake Water Bodies (>50ha) <i>Drinking water abstraction points</i> <i>ESB Impoundments for power generation</i> <i>Local Authority Information</i>	Presence or absence of dams. Assessment refers to lake WB containing the dam plus the WB.	No dam(s)	-	-	Dam(s) present – WB containing the dam plus the WB downstream are at risk.
4	Water regulation (locks & weirs)	<i>RBD Locks layer-generate from OSI maps</i> OPW Weirs layer OPW Sluices layer CFB Impassable Barriers (& attribute info) <i>IWAI navigation maps</i> <i>Mill weir information gathered from RBD</i>	Number. of artificially placed structures per km per water body	<1	1-3	3-5	>5
5	Intensive Land Use	CORINE Urban fabric and industrial, commercial and transport units (1.1, 1.2) CORINE Peat Extraction Areas (exploited raised & blanket bog) Bord na Mona peat extraction area maps CORINE Coniferous forests CORINE arable land	Proportion of water body stretch length with intensive land use cover.	<10%	10-30%	30-70%	>70%



Hydromorphological pressures in Ireland

■ Significant Issues & Future Studies

- Channelisation & dredging
- Intensive land use
- Freshwaters - utilise "historical recovery datasets" & fieldwork "rapid assessment techniques" to verify risk thresholds
- Marine – develop pressure magnitude & receptor sensitivity approach

