

## Work Packages

The work packages will be as follows:

WP	Title	Lead Org.*
1	Belfast Capital Works Programmes, Appraisals, Resources: Gap Analysis and Integration	DRD
2	NI Un-adopted Assets	Rivers Agency
3	NI Storm Separation Pilot Projects	NI Water
4	Belfast Environmental Drivers	NIEA
5	NI Wastewater Marine Investment Steering Group	NI Water
6	Belfast Drainage Area Planning	NI Water
7	Belfast WwTW Appraisal	NI Water
8	Belfast Roads and Streets Drainage Investment	TNI
9	Belfast Watercourses Investment	Rivers Agency
10	Belfast Lough Diffused Pollution Assessment and Reduction	NIEA
11	Belfast Integrated Solution Development, Appraisal, Planning – The Belfast SDI Plan	DRD
12	Belfast SDI Plan Future Financing	DFP
13	SDI Programme Communication Strategy	DRD
14	Belfast Strategic Environmental Assessment (SEA) and Habitats Risk Assessment (HRA)	DRD
15	NI Integrated Drainage Investment Planning Guide and Programme	DRD

Note that:

- Work associated with some of these WPs has already commenced.
- Other WPs may be similar to an organisations Business As Usual (BAU) activity, but need to be modified to align to the scope and aims of the SDI Programme.

\*Although Belfast City Council (BCC) is not a lead organisation for any work package, it will provide input to many packages through its roles related to:

- Preparation of Local Development Plans
- Planning Control
- Management of the Lagan Weir (which includes a flood alleviation role)
- Management of the River Lagan aeration system (which degrades pollution that has entered the Lagan)
- Off-street car parks (which may need to be modified to contribute to storm separation and / or include storm attenuation)
- Recreation & Access (parks may be modified to provide flood pathways, flood storage, flood barriers)
- Ownership of other lands
- Public engagement and communication (WP 13)

<b>Package Ref:</b>	1
<b>Package Name:</b>	Belfast Capital Works Programmes, Appraisals, Resources - Gap Analysis and Integration
<b>Leader (name / org):</b>	DRD, SDI Programme Manager
<b>Key Other Participants:</b>	NI Water, TNI, Rivers Agency, BCC
<b>Contents / outputs:</b>	<p>Each organisation already has projects, resources or studies working on various aspects of drainage and / or wastewater collection and treatment. This work package includes:</p> <ol style="list-style-type: none"> <li>Review Capital Works Programmes (CWP) and studies / appraisals to identify projects that may help contribute to, or help inform, the SDI Programme</li> <li>Review current and planned resources</li> <li>Identify gaps</li> <li>Identify opportunities for integrated working</li> <li>Propose modifications to scope, programme, resources</li> </ol> <p>This will include data collection, and PESTEL (Political, Economic, Social, Technological, Environmental, and Legal) analysis to identify and then schedule all known issues, risks and constraints.</p>
<b>Key Interfaces:</b>	Informs approach to all other packages.
<b>Funding:</b>	DRD WPSD

<b>Package Ref:</b>	2
<b>Package Name:</b>	NI Un-adopted Assets
<b>Leader (name / org):</b>	Rivers Agency ( <i>proposed – to be asked</i> )
<b>Key Other Participants:</b>	NI Water, TNI, Rivers Agency, BCC
<b>Contents / outputs:</b>	<ol style="list-style-type: none"> <li>Identifying un-adopted Assets</li> <li>Resolving their future ownership</li> <li>Initial repairs and maintenance</li> <li>Long term planning</li> </ol> <p>Initial focuses Belfast, then extend this to other towns in a priority agreed with NI Water and TNI.</p>
<b>Key Interfaces:</b>	WP 6,7,9,10,11,12
<b>Funding:</b>	Participants existing core funding – initially, then TBA

<b>Package Ref:</b>	3
<b>Package Name:</b>	NI Storm Separation Pilot Projects
<b>Leader (name / org):</b>	NI Water, Steve Blockwell (Wastewater Infra Performance Manager)
<b>Key Other Participants:</b>	TNI (Colin Sykes), Rivers Agency, DRD (Mark Stranaghan)
<b>Contents / outputs:</b>	<p>A pilot programme of proactive storm separation carried out in a range of scenarios to help reduce flooding, pollution, and operating costs.</p> <p>This pilot programme has the following aims:</p> <ul style="list-style-type: none"> <li>• To develop knowledge and skills (planning &amp; delivery)</li> <li>• To develop collaborative working between Stakeholders</li> <li>• To improve cost estimating accuracy</li> <li>• To test the benefits (including the wider benefits)</li> <li>• To understand maintenance issues and costs</li> <li>• To help develop broad support</li> </ul> <p>Whilst this will focus on Belfast it will extend to all other areas of NI.</p>
<b>Key Interfaces:</b>	WP 5, 6, 8,9,13
<b>Funding:</b>	NI Water PC15 Storm Separation Pilot Project, DRD Ministers Priority Fund and TNI Annual Funds.

<b>Package Ref:</b>	4
<b>Package Name:</b>	Belfast Environmental Drivers
<b>Leader (name / org):</b>	NIEA (name tbd)
<b>Key Other Participants:</b>	DOE Marine Division, DRD SDI Programme Manager, and NI Water (WG5), and later Loughs Agency
<b>Contents / outputs:</b>	<ol style="list-style-type: none"> <li>a) Review of Legislation to be considered when investment planning</li> <li>b) Engagement with EU on compliance reporting and future legislation, and on any challenges by the EU about UK compliance.</li> <li>c) WFD status (nutrients and other parameters) now and future targets</li> <li>d) Shellfish flesh and water quality now and future targets</li> <li>e) Bathing Water Quality now and future targets</li> <li>f) UIDs (complaints about SRD and visible discharges)</li> <li>g) Review of trends or issues of concern on why any current satisfactory levels and / or improvements achieved in recent years may be 'at risk'.</li> <li>h) Review of more stringent requirements that are planned to come into effect by up to 2023, which may drive investment.</li> <li>i) Indicative future standard for Belfast WwTW continuous discharge</li> </ol>
<b>Key Interfaces:</b>	WG 5, 6,7,10,14
<b>Funding:</b>	NIEA and DOE Marine Division

<b>Package Ref:</b>	5
<b>Package Name:</b>	NI Wastewater Marine Investment Steering Group
<b>Leader (name / org):</b>	NI Water, Paddy Brow (Head of Asset Strategy)
<b>Key Other Participants:</b>	DOE Marine, NIEA
<b>Contents / outputs:</b>	<p>a) Coordinate NI input into the WaterUK Sewerage Roadmap</p> <p>b) Develop a strategy for marine modelling, and the related sewerage network, river, diffused pollution, and WwTW modelling (learn from the modelling strategy followed by the Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) and best practiced by others in the UK)</p> <p>c) Develop a strategy for procurement of this modelling and then oversee implementation of this.</p> <p>d) Oversee that the related appraisals and teams within NI Water are aligned internally, so that the inter-linkage between them, and the SDI Programme, are defined and managed.</p>
<b>Key Interfaces:</b>	WP 4, 6, 7,10
<b>Funding:</b>	NI Water PC15 Business Plan projects

<b>Package Ref:</b>	6
<b>Package Name:</b>	Belfast Drainage Area Planning
<b>Leader (name / org):</b>	NI Water, Steve Blockwell (Wastewater Infra Performance Manager)
<b>Key Other Participants:</b>	NIEA
<b>Contents / outputs:</b>	<p>a) Belfast DAPs (Initially)</p> <ul style="list-style-type: none"> <li>• East Belfast Sewerage Infrastructure Improvements (including network modelling)</li> <li>• Glenmachan Sewerage Infrastructure Improvements (including network modelling)</li> <li>• Duncrue Sewerage Infrastructure Improvements (including network modelling)</li> </ul> <p>b) Other DAPs that may impact Belfast Lough WFD status (including those discharging into the Lagan).</p>
<b>Key Interfaces:</b>	WP 5, 7,8,9,11,12
<b>Funding:</b>	NI Water PC15 Business Plan projects

<b>Package Ref:</b>	7
<b>Package Name:</b>	Belfast WwTW Appraisal
<b>Leader (name / org):</b>	NI Water, Dermott McCurdy (Head of WwTW Procurement)
<b>Key Other Participants:</b>	NIEA, DOE Marine
<b>Contents / outputs:</b>	<p>a) Appraisal and Business Case for investment in Belfast WwTW to comply with the future standard and to accommodate economic development.</p> <p>b) Marine modelling procurement and delivery (the strategy for which developed in WP 5)</p>
<b>Key Interfaces:</b>	WP 4, 5, 6, 10, 12
<b>Funding:</b>	NI Water PC15 Business Plan projects (appraisal costs only)

<b>Package Ref:</b>	8
<b>Package Name:</b>	Belfast Roads and Streets Drainage Investment
<b>Leader (name / org):</b>	TNI (name tba)
<b>Key Other Participants:</b>	NI Water, Rivers Agency, BCC
<b>Contents / outputs:</b>	<p>a) Proactive (implementing the NI Executive's Long Term Water Strategy) - when progressing each road schemes (new and refurbishments) appraise the investment drivers and viability for including each of the following within the scope as part of the BAU approach to investment planning:</p> <ul style="list-style-type: none"> <li>• Storm separation (removing road drainage surface water from combined sewers)</li> <li>• Design for exceedance (so that when the capacity of road drainage systems are exceeded the excess can flows into pre-planned areas with reduced impact)</li> <li>• Storm water attenuation &amp; SuDS – to hold back flows where this will reduce flooding elsewhere</li> <li>• To provide flood alleviation (for example increasing the level of roads to act as a flood water flow path barrier – to flooding from sea, pluvial, fluvial and out of sewer)</li> </ul> <p>b) Reactive (to assist development of the SDI Programme) – when requested by DRD, NI Water or Rivers Agency to appraise options for modifying existing roads to help reducing pollution and flooding (from all sources) by:</p> <ul style="list-style-type: none"> <li>• Storm separation</li> <li>• Design for exceedance</li> <li>• Storm water attenuation &amp; SuDS</li> <li>• To provide flood alleviation</li> </ul> <p>c) Delivery of these works where there are assessed to be aligned to the SDI Programme.</p>
<b>Key Interfaces:</b>	WP 3, 6, 12
<b>Funding:</b>	TNI core funding initially, Ministers Priority Fund

<b>Package Ref:</b>	9
<b>Package Name:</b>	Belfast Watercourses Investment
<b>Leader (name / org):</b>	Rivers Agency
<b>Key Other Participants:</b>	
BCC (Lagan Weir), NI Water, TNI	
<b>Contents / outputs:</b>	
<p>a) To determine the investment in watercourses and flood defences / alleviation works necessary to assist development of the SDI Plan by reducing flooding from all sources. This will include appraisal of how best to:</p> <ul style="list-style-type: none"> <li>• Accommodate increased flows due to storm separation</li> <li>• Accommodate NI Water and TNI 'design for exceedance'</li> <li>• Modify water courses to assist storm attenuation</li> </ul> <p>b) Delivery of these works where assessed to be aligned to the SDI Programme.</p>	
<b>Key Interfaces:</b>	
WP 2, 3,6,8,11,12	
<b>Funding:</b>	
Rivers Agency core initially	

<b>Package Ref:</b>	10
<b>Package Name:</b>	Belfast Lough Diffused Pollution Assessment & Reduction
<b>Leader (name / org):</b>	NIEA
<b>Key Other Participants:</b>	
DOE Marine, DARD, Rivers Agency, BCC	
<b>Contents / outputs:</b>	
<p>a) In areas where capital investment may be needed as part of the SPD Programme, to determine the sources and rates of diffused pollution that may impact EU WFD or EU rBWD status for input into marine modelling (WP 7)</p> <p>b) Then, with the exception of discharges from UIDs and WwTWs, develop plans to reduce them through application of the 'Polluter Pays Principle'.</p>	
<b>Key Interfaces:</b>	
WP 5, 6,7	
<b>Funding:</b>	
NIEA and DOE Marine Core Funding	

<b>Package Ref:</b>	11
<b>Package Name:</b>	Belfast Integrated Solution Development, Appraisal, Planning – The Belfast SDI Plan
<b>Leader (name / org):</b>	DRD, SDI Programme Manager
<b>Key Other Participants:</b>	NI Water, TNi, Rivers Agency, BCC
<b>Contents / outputs:</b>	<ul style="list-style-type: none"> <li>a) To agree the scope of integrated solutions</li> <li>b) To progress their joint appraisal</li> <li>c) To develop and agree procurement responsibility (which is likely to be by either NI Water, TNi, or Rivers Agency – with each party contributing to the costs in accordance with the project benefits aligned to their License / duties)</li> </ul>
<b>Key Interfaces:</b>	WP 1,2,5,6,7,8,9,10,12
<b>Funding:</b>	TBA (probably from NI Water, TNi, Rivers Agency). <i>This could cost up to £2m</i>

<b>Package Ref:</b>	12
<b>Package Name:</b>	Belfast SDI Plan Future Financing
<b>Leader (name / org):</b>	DFP
<b>Key Other Participants:</b>	DRD, DARD, SIB, BCC
<b>Contents / outputs:</b>	To determine how implementation of the SDP Programme will be financed.
<b>Key Interfaces:</b>	WP 6,7,8,9,10,11
<b>Funding:</b>	DFP

<b>Package Ref:</b>	13
<b>Package Name:</b>	SDI Programme Communication Strategy
<b>Leader (name / org):</b>	DRD - SDI Programme Manager
<b>Key Other Participants:</b>	All others on the SDI PB
<b>Contents / outputs:</b>	<ul style="list-style-type: none"> <li>a) To develop a Communications Strategy</li> <li>b) To develop a Communications Action Plan</li> <li>c) To oversee implementation of the Action Plan (which may have actions for a number of Stakeholders)</li> </ul>
<b>Key Interfaces:</b>	WP – All
<b>Funding:</b>	DRD WPSD

<b>Package Ref:</b>	14
<b>Package Name:</b>	Belfast Strategic Environmental Assessment (SEA) and Habitats Risk Assessment (HRA)
<b>Leader (name / org):</b>	DRD - SDI Programme Manager
<b>Key Other Participants:</b>	NI Water, TNI, Rivers Agency, BCC
<b>Contents / outputs:</b>	To progress: <ul style="list-style-type: none"> <li>• Strategic Environmental Assessment (SEA)</li> <li>• Habitats Risk Assessment (HRA)</li> </ul>
<b>Key Interfaces:</b>	WP – All
<b>Funding:</b>	DRD WPSD (£70k)

<b>Package Ref:</b>	15
<b>Package Name:</b>	NI Integrated Drainage Investment Planning Guide and Programme
<b>Leader (name / org):</b>	DRD - SDI Programme Manager
<b>Key Other Participants:</b>	NI Water, TNI, Rivers Agency, BCC, NIEA
<b>Contents / outputs:</b>	a) Capture of lessons learned from all other work packages. b) To set out how the approaches, methodologies, and collaborative working developed through all other WP should inform the approach to be taken to drainage investment planning for all other parts of Northern Ireland. This to be communicated in an 'NI Integrated Drainage Investment Planning Guide'. c) The final element will be a prioritised programme for how this guide should be followed across NI to develop SDI Plans for other large towns and cities (when assessed to be necessary).
<b>Key Interfaces:</b>	WP – All
<b>Funding:</b>	DRD WPSD