

Appendix 1 – Detailed Dashboard Description

1. Ecology Data Page

The Ecology Data Page shall provide information on ecological status assessments, status drivers, macroinvertebrate Q-value, and taxa composition and abundance. The page should facilitate comparison of the above elements between assessment periods and support identification of changes over time.

Functional Requirements

1.1 Ecological Status Summary

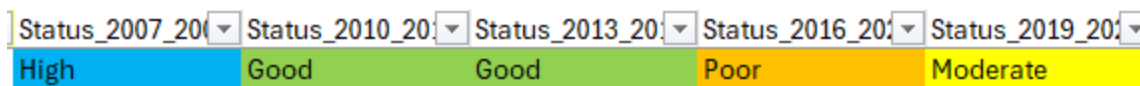


Figure 1: Example Ecological Status in each monitoring period

The dashboard shall display:

- Ecological status for each monitoring period.
- Associated status driver information.
- Colour-coded status classifications:
 - High (blue)
 - Good (green)
 - Moderate (yellow)
 - Poor (orange)
 - Bad (red)

1.2 Interactive Mapping

The dashboard shall include an interactive map displaying:

- Monitoring stations
- River networks
- Waterbody boundaries
- Search functionality using Eircode

Users shall be able to select monitoring stations directly from the map, with all associated charts, tables, and visualisations updating automatically.

1.3 Q-Value Assessments

The dashboard shall display:

- Q-values for all available assessments.
- Assessment dates.
- Associated suffixes where applicable e.g. *.
- Explanatory text describing suffix meanings.

The Contractor shall propose the most appropriate visualisation approach for comparing Q-value assessments across multiple survey years.

1.4 Taxa and Species Analysis

The dashboard shall:

- Display taxa/species recorded during ecological assessments.
- Display abundance of taxa.
- Highlight changes in taxa between assessment periods.
- Identify increases and decreases in taxa abundance.
- Apply colour-coding by taxa group (e.g. Group A, Group B, etc.).

The desired outcome is to clearly identify ecological changes between monitoring cycles.

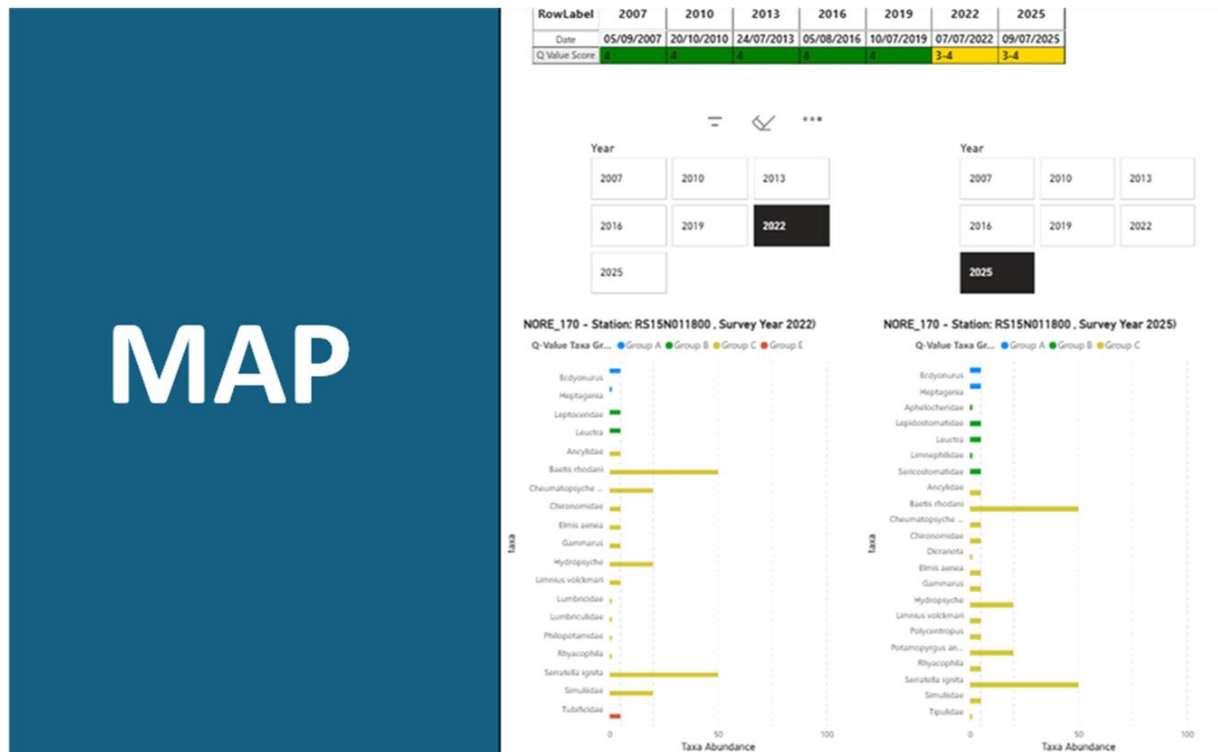


Figure 2: Ecology Page Mock-Up.

1.5 Comparative Analysis

The dashboard should allow users to:

- Compare multiple years of data.
- Compare monitoring stations within a waterbody.
- Compare monitoring stations across different waterbodies.

1.6 Additional Ecological Information

The dashboard shall provide access to supplementary ecological datasets including:

- RHAT assessments
- Macrophyte data
- Diatom data
- Fish status information
- Sediment-related information where available

The Contractor shall recommend an appropriate user interface approach for the additional ecological information e.g. additional tabs/sub-pages, or a structured scrolling layout.

2. Chemistry Data Page

The Chemistry Data Page shall provide access to chemistry monitoring data and support detailed analysis of temporal trends with regard to Environmental Quality Standards (EQS). Charts should show chemical trends, with a table highlighting years where a given parameter exceeds the EQS.

Functional Requirements

2.1 Data Refresh

The solution should support regular automated updates of chemistry data. The preferred update frequency can be discussed with the contracting company.

2.2 Annual Summary Table

The dashboard shall include a summary table displaying annual mean values for each parameter.

Values exceeding the applicable EQS threshold shall be clearly highlighted. EQS values will be provided by the EPA.

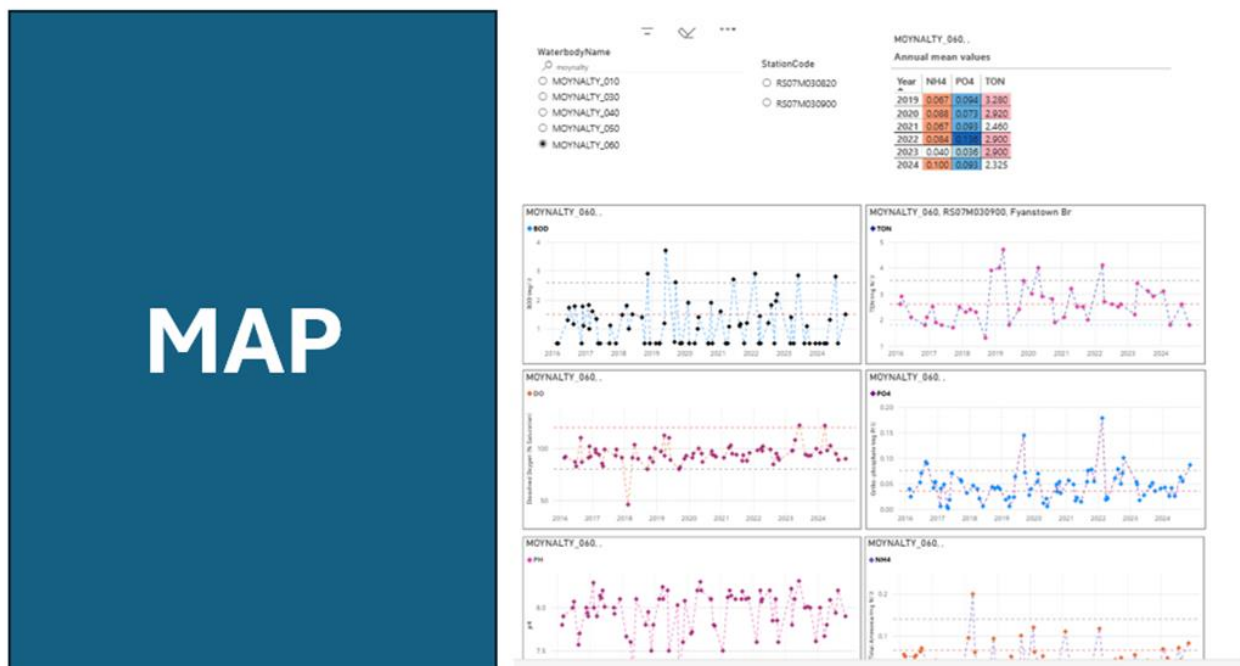


Figure 3: Chemistry Page Mock-Up

2.3 Interactive Mapping

The dashboard shall include an interactive map displaying:

- Monitoring stations
- River networks
- Waterbody boundaries
- Search functionality using Eircode

Users shall be able to select monitoring stations directly from the map, with all associated charts, tables, and visualisations updating automatically.

2.4 Graphing Functionality

The dashboard should provide:

- Suggested six graph panels visible simultaneously.
- User selection of parameters within each panel.
- Graphs shall include all sample results, displayed at the date on which each sample was recorded.
- Option for full-screen viewing of individual graphs.
- User-adjustable axis scaling, to assess spikes in each parameter.
- Ability to compare multiple stations on same plot for same parameter.

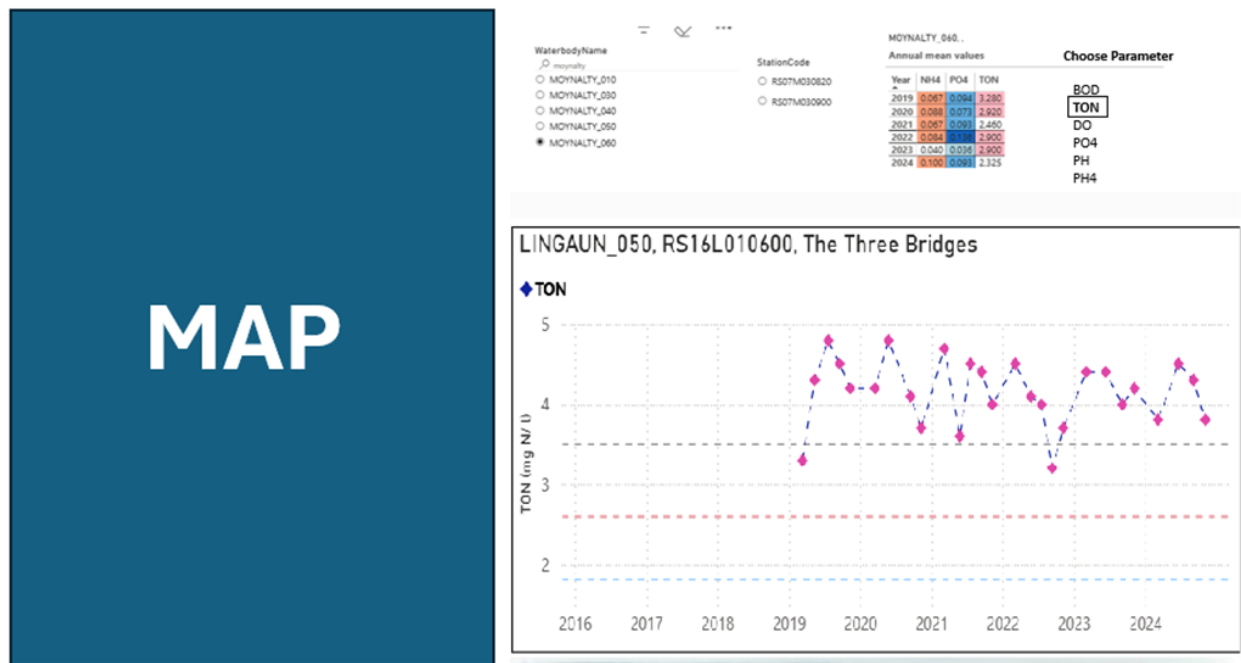


Figure 4: Example Chemistry Graph Full Screen View.

2.5 Monitoring Point Information

The dashboard shall display contextual information regarding:

- Number of chemistry monitoring points associated with the selected waterbody.
- Associated station codes.

3. Local Assessment Data Page

The Local Assessment Data Page shall provide access to waterbody-level contextual information and local knowledge gathered through assessment and investigation activities. This page will primarily consist of text-based information and links to supporting data sources. The preferred update frequency can be discussed with the contracting company.

Functional Requirements

3.1 Notifications and Events

The dashboard shall display indicators for:

- Red Dot notifications
- Pollution events
- Fish kills

Where applicable, event dates shall also be displayed.

3.2 Local Investigations

The dashboard shall display:

- ROC input information.
- Flag if the waterbody is within a Priority Area for Action, with associated text describing work progress.
- Option to include information from WFD App e.g. referral data.

	A	B	C	D	E	H	I	J	K	L	M	N	O	P	Q	
1	Waterbod	WaterbodyName	AFACode	AFAName	LocalAuthority	SignificantPressur	PressureT	Locations	Assessme	ImplementationOrg	ReferralDescription	ReferralDi	ReferredBy	ActionPro	PlannedC	ProgressDescription
											Focus on reducing sediment loss from the W-E tributary. Source and Mobilisation Control: This should include informing and educating farmers, ensuring that land reclamation (and reseeded) are appropriately managed. Also prevent livestock access to waters. Ensure appropriate drain maintenance. Maintain buffers and avoid stripping vegetation up to the edges of banks.					LAWPRO assessment found there was stream bed and high turbidity in the vicinity of Bridge D/S of Glens Bridge). Deep exposed (unvegetated) clay banks. Ru source of sediment here. There was a observed in Milltown 10, with evidence involving stripping of vegetation up to cover. Eleven farms assessed for referral. Th allowed to naturally vegetate which w future sediment loss in high rainfall e removed, water troughs installed, wh losses of sediment to the water body.
2	IE_SW_22H	MILLTOWN (KERRY)_010	AFA0131	Milltown	Kerry County Council	WBP0005534	Hydric	Impacts to	1	LAWSAT	ASSAP - Teagasc	Pathway Control measures could include: Maintaining in-field grass buffers	#####	Maev	Ry: Completer	#####

Figure 5: Example of descriptive text information to display on page 3.

Current Data Structure

Data Page	Heading	Tab	Information	Fields
Ecology	Macroinvertebrate Q-value	<u>2019-2024 Q</u> <u>surveyDataAvailable</u>	Waterbody Name Station Q value Survey Date Suffix	Name (A) RWB name (E) Q value (S) Suffix (including suffix explanation) (T)

Ecology	RHAT	all avail RHAT 2019-2024	Waterbody Name Station Hydromorphology Class Channel Form Comments Channel Vegetation Comments Channel Substrate Condition Comments Channel Barriers to Continuity Comments Bank Structure Comments Bank Vegetation Comments Riparian Landcover Comments Floodplain Connectivity Comments	Waterbody Name (C) Station (F) Hydromorphology Class (U) Channel Form Comments (Y) Channel Vegetation Comments (AA) Channel Substrate Condition Comments (AC) Channel Barriers to Continuity Comments (AE) Bank Structure Comments (AH) Bank Vegetation Comments (AK) Riparian Landcover Comments (AN) Floodplain Connectivity Comments (AQ)
Ecology	Macrophyte	2022-2024 macrophyte infoinD365	Waterbody Name Station Plant Cover Filamentous Algae Cover Total % Silt/Slime Complex Total Taxa Count	Waterbody Name (C) Station (F) Plant Cover (V) Filamentous Algae Cover (W) Total % Silt/Slime Complex (X) Total Taxa Count (Y)

Ecology	Diatom	TBC		
Ecology	Fish		Waterbody Name Station 2019-2024 Fish Status 2019-2024 Fish Status Year Used	Waterbody Name (H) Station (L) 2019-2024 Fish Status (AU) 2019-2024 Fish Status Year Used (AW)
Ecology	Status Driver	C_P40_WaterDataInsights_2026081	Status Driver	Status Driver (AH)
Lakes/Estuary	TBC			
Chemistry	Monitoring Data	AquariusRWChemDownload_16-24	Waterbody Name Station Sample Date Parameter Result	Waterbody Name (B) Station (D) Sample Date (H) Parameter (I) Result (J)
Local Assessment Data	ROC Input	2026 Characterisation	Waterbody Name Conclusions on Significant Pressures Reasons for Change	Waterbody Name (B) Conclusions on Significant Pressures (AM) Reasons for Change (AN)

Local Assessment Data	Pollution Events	C_P40_WaterDataInsights_2026081	Red Dot Pollution Event Fish Kill	Red Dot (AY and BB) Pollution Event (AZ) Fish Kill (BA)
Local Assessment Data	Area for Action / Catchment Tracker		Waterbody Name AfA Catchment Tracker Text	