Using MUSIC-*link* for Ballina Shire Council

In order to improve the development assessment process with regards to Water Sensitive Urban Design, Council is working with eWater to simplify the process of developing Stormwater Treatment Strategies. The use of **MUSIC-*link*** can simplify the development and assessment of MUSIC models.

As such, Council encourages proponents to utilise the **MUSIC**-*link* function when preparing MUSIC models for proposed developments within the Ballina Shire Council.

When Ballina Shire Council is assessing a development proposal, we must check that it complies with our Water Sensitive Urban Design policies. While eWater's **MUSIC** software makes it possible to achieve compliance with the targets and parameters, the assessment and refinement process has traditionally been iterative and time-consuming.

The main benefit of **MUSIC-*link*** is that developers and consultants can design their stormwater management infrastructure and then immediately validate it (within the software) to ensure that parameters fall within the limits of Ballina Shire Council's requirements. On receiving a submitted design and related validation report, our Development Assessment team can immediately check for compliance with our standards. If the design is compliant, it can be passed onto engineers for detailed evaluation.

MUSIC-*link* streamlines the process of achieving a match between the Ballina Shire Council's specific guidelines and urban developers' water sensitive designs. This shortcut bypasses the traditionally iterative process, where assessing authorities returned models to developers to be amended and re-submitted until they are suitable for engineering evaluation.
MUSIC-***link*** allows Ballina Shire Council to:

- Apply a simple, robust and quicker process of WSUD assessment, helped by the compliance report that **MUSIC-*link*** provides with designs;
- Communicate clearly and directly with developers and designers, providing locally specific WSUD requirements and modelling parameters;
- Provide increased levels of redundancy for model assessment; and
- Build capacity and support policy redundancy to support longevity.

Using MUSIC-*link*

MUSIC-*link* forms part of the standard **MUSIC** v6 interface, and can be accessed using the **MUSIC-*link*** tab (shown below) in the main interface.

MUSIC-*link* tab

Working with **MUSIC-*link*** is a two-step process:

1. Create and run your **MUSIC** model; and
2. Validate you model against the set of pre-defined parameters for a particular assessing authority.

Creating a MUSIC model

When creating a **MUSIC** model for inclusion in the validation process, you can choose one of two methods: either create a standard model, or directly create a **MUSIC-*link*** model, as described below.

Create a standard model

- Choose a standard meteorological template that is available with **MUSIC**;
- Build and run your **MUSIC** model;
- In the **MUSIC-*link*** tab, click ***Configure*** and choose ***Yes*** to convert the existing model to a **MUSIC-*link*** model;
- Choose Ballina Shire Council and the associated meteorological template from the **MUSIC-*link*** Configuration window that opens (as per below diagrams); and
- Then, initiate the validation process. Refer to Validating the **MUSIC-*link*** model for details.

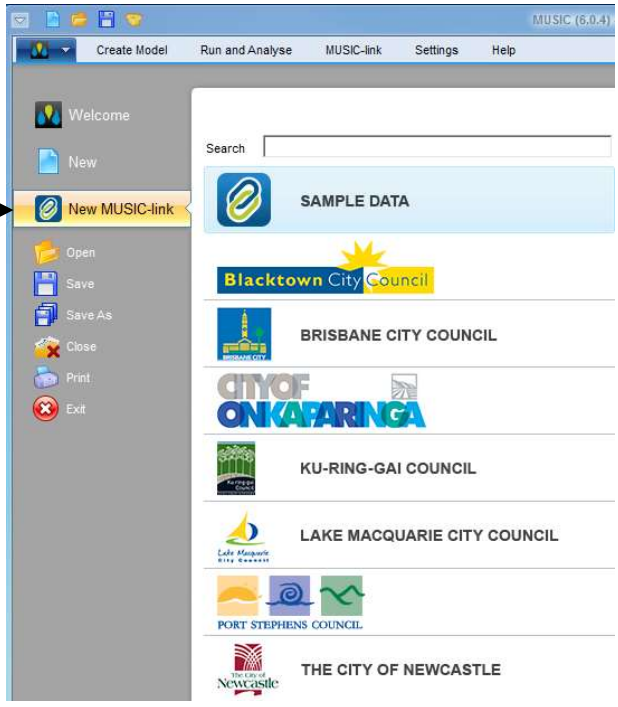
Directly create a MUSIC-*link* model

- Choose **New MUSIC-*link*** from the main **MUSIC** tab;
- Choose the Ballina Shire Council option from the drop down list and the associated meteorological template (as shown below);
- Build your model; and
- Then, initiate the validation process. Refer to **Validating the MUSIC-*link*** model for details.

Note:
When using MUSIC-link,

1. Nodes with import flows do not contribute to the total areas or the impervious percentage calculations.
2. Adopt the source node parameters provided in the MUSIC-Link template (lumped catchments) rather than the split catchment source nodes provided in the MUSIC modelling guidelines by Water by Design (SEQ Healthy Waterways Partnership, 2010).
3. Ballina Shire Council will not accept saturated zone bioretention basins (the Submerged Zone with Carbon Present toggled Yes in MUSIC) due to mosquito, midge, and cane toad management; and maintenance requirements.

Access to **MUSIC-*link*** with the names of assessing authorities from main **MUSIC** tab (only a partial list is shown in this figure)



Self-Validating the MUSIC-*link* model (Prior to lodgement with Ballina Shire Council)

Ensure that your **MUSIC** model has been created with Ballina Shire Council inputs prior to validating it. Once you have created your model:

1. Choose the **MUSIC-*link*** tab and click **Run MUSIC-*link***; and
2. Once the model has been run, the **MUSIC-*link*** window appears showing the validation report (see below).

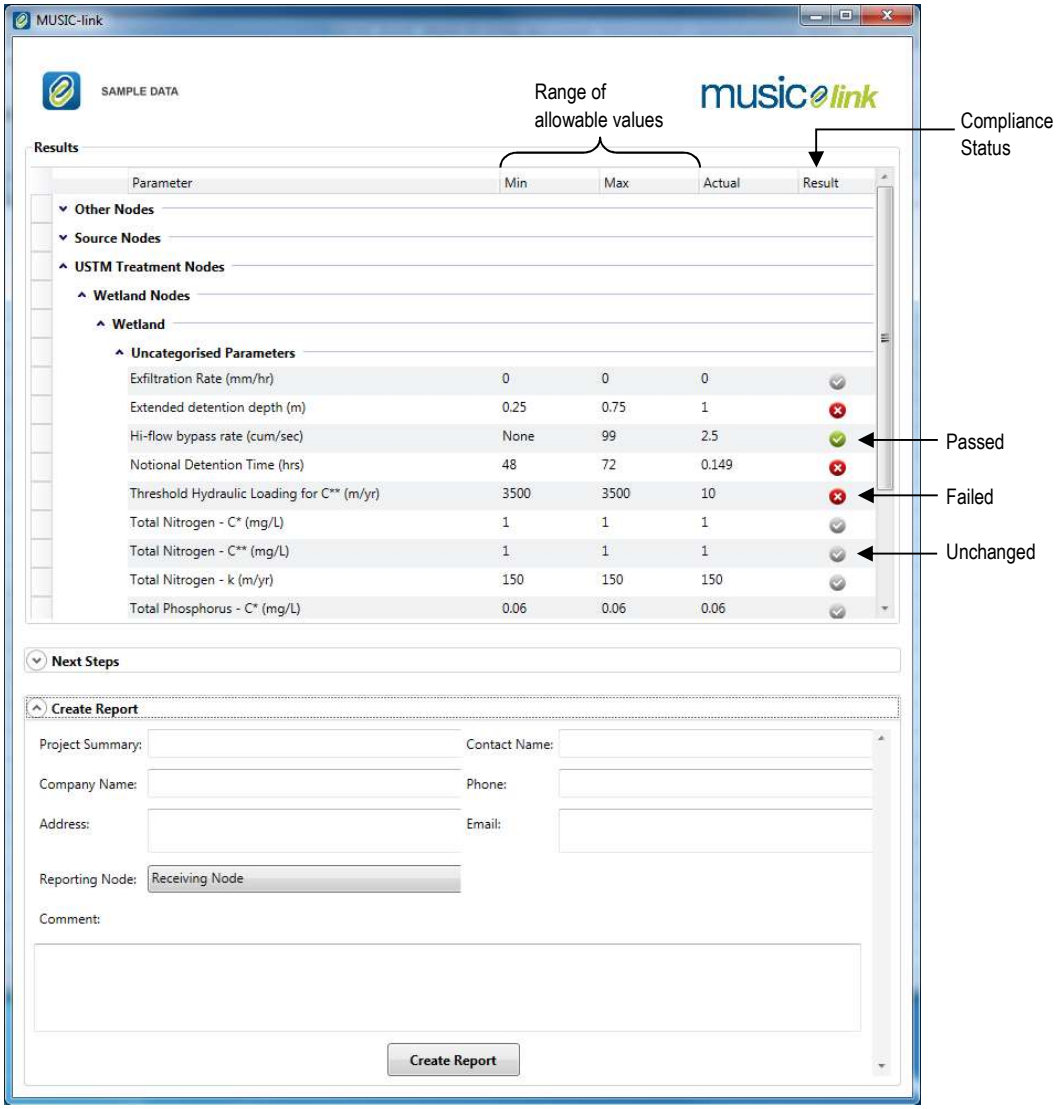
Validation report

A report is generated on completion of a validation run (as shown below). The top half of the report provides details of the validation results. It shows the compliance status of each parameter, which indicates whether the result in within the allowable range. An unchanged result indicates that this value has not been modified by the user (default value used during model run), and hence, it has no effect on overall compliance.

You can now do the following with the report:

- Click ***Create Report*** to expand a form, where you can enter details of the project & associated notes as well as contact details for those who are submitting the model & report. A report will only be generated (and can be saved in a PDF format) if all the parameters are compliant, or you have provided an explanation to justify why parameters are non-compliant (using the ***Comment*** field)

- Click ***Next Steps*** to expand the report for Ballina Shire Council lodgement Instructions.



Lodgement of your MUSIC model and MUSIC-*link* Report to Ballina Shire Council

If the MUSIC model meets the reportable parameter requirements for Ballina Shire Council's setup configuration and targets, proceed as follows:

1. Create/Generate a Ballina Shire Council **MUSIC-*link*** PDF report for submission with your model;
2. Submit your self-validated **MUSIC** model along with the Ballina Shire Council **MUSIC-*link*** PDF report to Ballina Shire Council as part of your Development Application.

If the parameters and/or targets are outside the required ranges and you believe the use of these parameters or the output results can be justified, please follow the steps below:

1. Generate a Ballina Shire Council **MUSIC-*link*** PDF report for submission with your model. **NOTE**: Any parameter breaches must be justified for the model to be considered by Ballina Shire Council;
2. Provide reasons for model assumptions that are outside of default parameter ranges in the **Comments** section; and/or
3. Submit your self-validated **MUSIC** model along with the Ballina Shire Council **MUSIC-*link*** PDF report to Ballina Shire Council as part of your Development Application.

All material submitted must be in accordance with Ballina Shire Council's DA submission requirements.

Further Assistance:
If you require further assistance with utilising MUSIC-link Ballina Shire Council, please contact eWater support on 1300 92 837 support@ewater.org.au or Ballina Shire Council on 02 6686 1497, during office hours.