

Using MUSIC-link for the ACT Government

When the ACT Government (Environment and Planning Directorate) is assessing a development application, it must comply with the Territory Plan Waterways Water Sensitive Urban (WSUD) Design General Code and the water sensitive urban design complements of Territory Plan Development Codes. While eWater's MUSIC software makes it possible to demonstrate compliance with the Code's targets, MUSIC-link makes it possible to efficiently and effectively demonstrate this as part of the development approval submission process.

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 the design parameters and modelled performance of the design is within the limits set by the ACT Government. On receiving a submitted design and validated report, the Development Assessment Team can immediately check for compliance with the Territory Plan requirements. If the design is compliant, it speeds up the process of development application assessment.

MUSIC-link streamlines the process of achieving a match between the Territory Plan code requirements and the developer's water sensitive designs. This shortcuts the traditional iterative process, where assessing authorities return models to developers to be amended and re-submitted until they are suitable for further evaluation.

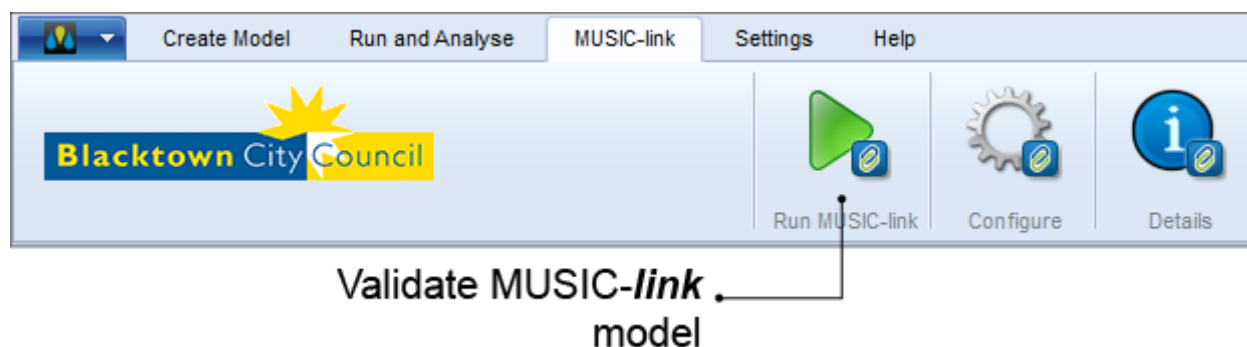
MUSIC-link allows the ACT Government to:

- Apply a simple, robust and quicker process of WSUD assessment, helped by a compliance report that MUSIC-link provides with designs;
- Communicate clearly and directly with developers and designers, providing locally specific WSUD requirements and modelling parameters; and
- Build capacity and support WSUD policy objectives.

Using MUSIC-link

Music-link forms part of the standard MUSIC 6 interface and can be accessed using the Music-link tab in the main interface.

MUSIC-link tab [example]



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

1. Create and run your MUSIC model; and
2. Validate your model against the ACT Government set of pre-defined parameters.

Creating a MUSIC Model

When creating a MUSIC model for inclusion in the validation process there are two methods available: create a standard model, or create a MUSIC-link model, as described below.

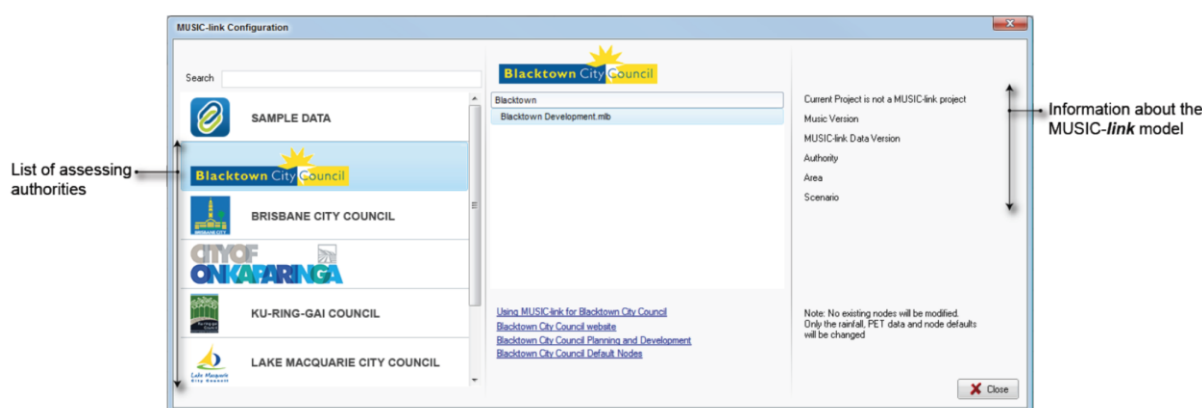
Create a standard MUSIC model

- Chose the standard meteorological template that is available in 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 ACT Government and the associated meteorological template from the MUSIC-*link* Configuration window that opens (as per the diagram below); and
- 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 ACT Government option from the drop down list and the associated meteorological template (as shown below);
- Build your model; and
- Initiate the validation process. Refer to **Validating the MUSIC-*link* model** for details.

Note: When using MUSIC-*link*, nodes with import flows do not contribute to the total are or the impervious percentage calculation.



Self-Validating the MUSIC-*link* model (Prior to lodgement with the ACT Government)

Ensure that your MUSIC model has been created with ACT Government 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 result. It shows the compliance status of each parameter, which indicates whether the result is within the allowable range. An unchanged result indicates that this value has not been modified by the user (i.e. default value used during model run) and hence, has no effect on overall compliance.

You can now do the following with your report:

- Click **Create Report** to expand a form, where you can enter the details of the project and associated notes as well as contact details for who is submitting the model and report. NOTE: A report will only be generated if all the parameters are compliant, or you have provided an explanation to justify why parameters are non-compliant (using the **Comment** field). You are also able to save a compliant report in PDF format.
- Click **Next Steps** to expand the report for ACT Government lodgement instructions (as outlined in the diagram below).

The screenshot shows the MUSIC-link application window. The 'Results' section displays a table of parameters for 'Pond Nodes' under the 'Uncategorised Parameters' group. The table has columns for Parameter, Min, Max, Actual, and Result. Annotations point to various parts of the interface:

- Range of allowable values:** Points to the 'Min' and 'Max' columns.
- Compliance status:** Points to the 'Result' column.
- Passed:** Points to a green checkmark in the 'Result' column for '% Reuse Demand Met'.
- Failed:** Points to a red 'X' in the 'Result' column for 'Extended detention depth (m)'.
- Unchanged:** Points to a grey checkmark in the 'Result' column for 'Total Nitrogen - C* (mg/L)'.
- List of parameters for compliance check:** Points to the 'Parameter' column.
- Customised to Blacktown City Council:** Points to the 'Next Steps' section, which contains specific instructions for Blacktown City Council.

The 'Next Steps' section includes the following text:

Once you have used the MUSIC-link self-validation functionality for your MUSIC model and it either:

A) Meets the reportable parameter requirements for Blacktown City Council's setup configuration and targets, then;

STEP 1) Generate a Blacktown City Council MUSIC-link PDF report for submission with your model.
STEP 2) Submit your self-validated MUSIC model along with the Blacktown City Council MUSIC-link PDF report to Blacktown City Council as part of your Development Application. All material submitted must be in accordance with Blacktown City Council DA submission requirements.

The 'Create Report' section contains form fields for:

- Project Summary
- Company Name
- Address
- Reporting Node (dropdown menu)
- Contact Name
- Phone
- Email
- Comment

A 'Create Report' button is located at the bottom of the form.

[ACT Government **Next Steps** lodgement instructions]

Once you have self-validated your MUSIC-**link** model and it either:

- (A) Meets the reportable parameter requirements for the ACT Government WSUD targets, then:

STEP 1) Generate an ACT Government MUSIC-**link** PDF report for submission with your model.

STEP 2) Submit your self-validated MUSIC model along with the ACT Government MUSIC-**link** PDF report to the Environment and Planning Directorate as part of your development application. All material submitted must be in accordance with ACT Government DA submission requirements.

- (B) The parameters 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:

STEP 1) Generate an ACT Government MUSIC-**link** PDF report for submission with your model. NOTE: Any non-compliant parameters must be justified for the model to be considered by the ACT Government.

STEP 2) Provide reasons for model assumptions that are outside the parameter ranges in the **Comments** section; and

STEP 3) Submit your self-validated MUSIC model also with the ACT Government MUSIC-**link** PDF report to the ACT Government as part of your Development Application. All material submitted must be in accordance with the ACT Government's Development Application submission requirements.

Lodgement of your MUSIC model and MUSIC-link** report to the ACT Government**

If the MUSIC model meets the reportable parameters for the ACT Government, proceed as follows:

1. Create/Generate an ACT Government MUSIC-**link** PDF report for submission with your model;
2. Submit your self-validated MUSIC model along with the ACT Government MUSIC-**link** PDF report to EPD as part of your Development Application.

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

1. Generate an ACT Government MUSIC-**link** PDF report for submission with your model. **NOTE:** Any non-compliant parameters must be justified for the model to be considered by the ACT Government;
2. Provide reasons for model assumptions that are outside the parameter ranges in the **Comments** section; and
3. Submit your self-validated MUSIC model also with the ACT Government MUSIC-**link** PDF report to the ACT Government as part of your Development Application.

NOTE: All material submitted must be in accordance with the ACT Government's Development Application submission requirements.

Further Assistance:

If you require further assistance with using the ACT Government's MUSIC-**link**, please contact eWater support on 1300 92837, support@ewater.com.au or the ACT Government on (02) 6207 5584 during office hours.