**Inputs:**

: Groundwater head

: Stream head

: The elevation where the river becomes disconnected

is the elevation of the first geologic layer defined by the user.

**Calculate head for left and right**

**Calculate stream stage**

**Calculate aquifer depth, normalized depth and wetted perimeter**

If then

and

Otherwise

**Calculate and**

**Calculate coefficients based on the tableTable

Description automatically generated**

**Calculate**

**Calculate the equivalent stream width and**

**For the Asymmetric case only:**

**For the Isotropic case:**

**For the Symmetric case (Isotropic):**

**For the Asymmetric case (isotropic):**

**For the Anisotropic case:**

**For the Symmetric case (Anisotropic):**

**For the Asymmetric case (Anisotropic):**

**Correction for clogging layer**

**For Symmetric case:**

**For the Asymmetric and Isotropic case:**

**For the Asymmetric and Anisotropic case:**

**Calculate stream-gw interaction:**

**For Symmetric case:**

**For the Asymmetric case:**