



## Case Study #2 Wetland Plant Weir

### **Wetland Plant Weir and Pond Construction**

Using a biological landform, ie a structure made of plants and geological material such as gravel, the goal was to return water to the floodplain. The intervention

- Increased the depth and enhanced an existing pond in a creek
- Created a perched wetland via a vegetated contour channel going under a bespoke culvert in order to rehydrate the floodplain - water is once again perched on the floodplain (instead of in an incised creek) groundwater pressure and field capacity can be reinstated, which has a flow-on effect to production potential (pardon the pun)

### **The importance of biological landforms**

Nothing holds structures together better than plants. This is why we create biological landforms rather than structures made of geological materials alone. In this instance, willow and reed were covered with creek gravel and other biological materials to create a biological landform - aka a very leaky weir.

Built using an 8-ton excavator driven into the creek.

*Designed by Peter Andrews. Implemented by Scott Middlebrook.*

Construction

Winter  
2017



Case Study #2  
Wetland Plant Weir



Construction

Winter  
2017

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Wetland Plant Weir



Construction

Winter  
2017

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Construction  
complete

Winter  
2017

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Early Growth

Autumn  
2018



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Rain event

Summer  
2018

Larger pond forming upstream of  
constructed weir



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Partially vegetated contour channel  
going through bespoke culvert



## High Performance Landscapes

NSF Design & Implementation  
Case Studies

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