

## BMP: Sub-Surface Drainage Water Management (601)

Sub-surface water management encourages producers to consider advanced levels of water management, going beyond the objective of simply removing excess water as quickly and as much as possible. In the case of sub-surface drainage, for example, designing a tile drain network that includes water management zones made possible by installation of control structures, enables a grower to hold back drainage water for use by a crop later in a dry growing season. This category also supports the capture of subsurface drainage water in a retention structure, rather than immediate discharge into a surface drainage network. Potential co-benefits of enhanced on-farm water management include mitigated downstream risks associated with water quantity (e.g., flood damage to infrastructure or drowning of crops) and quality (e.g., nutrient transfer to surface waters).

### Cost share ratio and funding cap

There is a cost share ratio of 50:50 and a funding cap of \$50,000 for this BMP.

### Eligible costs

- control structures (e.g., in-line or end-of-pipe and lift stations), enabling the establishment of water zones as part of a controlled (a.k.a. conservation) sub-surface drainage
- water retention structures capturing sub-surface drainage water
- personal labour (\$25 per hour) and personal equipment use (at set program rates)

### Ineligible costs

- retention structures that only capture surface water

### Notes

- This category will not fund the installation of conventional tile drainage networks (i.e., free-flowing with no water management zones enabled by control structures).
- Proponent must have a Licence to Construct Water Control Works before construction begins.
- Design-focused costs (e.g., site investigation by specialized consultants, design plans by tile installers, construction designs for retention structures) are eligible for 50 per cent cost share via the Resource Management Planning BMP category.
- Information expectations for proposals include site characteristics, cropping system and rotation, drainage design (if available), drainage coefficient and estimated amounts of released drainage water versus retained drainage water.
- Final reporting expectations include design specifics as part of the service provider's as-installed report. The service provider could be a professional consultant or installation company.

## BMP specific questions

You will be asked to answer the following questions as part of your application.

- What is your current water management strategy?
- What is the number of acres impacted by the project?
- How prepared is your farm to contend with variability in moisture levels?
- What is the current impact of your agricultural operation on nearby or downstream water bodies or groundwater?
- Does your operation currently rely exclusively on surface drainage? Would it benefit from investment in sub-surface drainage?
- Are you installing a control structure as part of a sub-surface network? If so, how many control structures?
- Will a storage structure be built? If so, how many acre-feet of water will be stored?
- Please include a site plan that shows the network of tile drainage pipes installed (spacing/depth/distance to ditches/control structures, pipe diameter, etc.). If a storage structure is also being built, please include the drawing and dimensions.

## Reference materials

For more guidance in developing your application, visit:

- **Manitoba Sustainable Development** - Application for **Licence to Construct Water Control Works**
- **Manitoba Agriculture**
  - **Nutrient Management**
  - **Soil and Water Management**
- **Minnesota Department of Agriculture - The Agricultural BMP Handbook for Minnesota**
- **The Transforming Drainage Project**