



FARM ADAPTATION INNOVATOR PROGRAM | PROJECT SUMMARY

Australian Technique Offers Novel Approach to Water Management

A **WATER MANAGEMENT TECHNIQUE** pioneered in Australia is being introduced and tested on farms on Vancouver Island. Demonstration plots in the Capital Regional District are offering BC farmers a first-hand look at Keyline Design tools and principals in action.

Climate change projections for southern Vancouver Island include an overall increase in average annual rainfall but with much of this falling in winter and potentially in spring and fall (and through more extreme rainfall events). Summers are anticipated to become drier with an increase in extremely hot days. These changes will require producers to increase the resilience of their operations for both drought and flood conditions.

“With increasing rainfall intensity and seasonal flood and drought regimes predicted for BC, strategies to buffer against these extremes will become critical to ensuring the viability of BC farmland,” says Tayler Krawczyk, co-owner

PROJECT *Keyline Water Management: Field Research & Education in the Capital Region*

LOCATION *Capital Regional District / Southern Vancouver Island*

COMPLETION *December 2017*

PROJECT LEAD *Hatchet & Seed*

FUNDING PARTNERS *Agriculture and Agri-Food Canada, BC Ministry of Agriculture, Beetnik Farms, Capital Regional District Integrated Watershed Management Program, Peninsula Streams Society, Raven Hill Herb Farm*

OTHER PARTNERS *Bullock Lake Farm*

of Hatchet & Seed, and the lead for the project. “This tool may help farmers slow, sink, spread and store more water on their farms.”

Keyline Design brings a holistic approach to farm water management using natural landscape contours and



cultivation techniques to spread water more evenly across the farm landscape and to improve run-off filtration. One of the primary techniques, Keyline plowing, uses a specialized subsoil plow designed for minimal soil disturbance to create small “rip lines” that follow the contours of the land to relieve soil compaction, store water and direct surplus rainfall away from areas that are prone to flooding.

The three-year project includes demonstration and control plots on three farms in the Capital Regional District, where there will be monitoring of the moisture, bulk density, texture and nutrient profile of soils. The Keyline Design framework uses contour maps to align the placement of farm infrastructure (roads, buildings, swales, ditches, reservoirs, retention ponds, shelter-belts, cultivation rows and irrigation lines) with water management goals.

Sharing information with the local farming community has been a priority since the outset, including free Keyline Design seminars and public field days.

“We are hosting Keyline Design seminars to show farmers how they can use free GIS contour data available within the Capital Regional District to better understand their farm’s micro-watershed and consciously plan the flow of water on their farm,” says Krawczyk.

Early interest and support from producers has exceeded initial expectations, with strong attendance at public seminars and field days. More outreach events are planned

for the remaining two years of the project. For information about the workshops and progress on the project, visit www.crkeyline.ca.

Projects like this are part of the work being delivered by the BC Agriculture & Food Climate Action Initiative (CAI). CAI develops tools and resources to assist BC farmers and ranchers with adapting to impacts of climate change. CAI’s Farm Adaptation Innovator Program engages directly with producers and local partners, providing funding for piloting, demonstration and knowledge transfer around farm level adaptation.

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www.BCAGClimateAction.ca

The BC Agriculture & Food Climate Action Initiative was launched in 2008 by the BC Agriculture Council to enable a proactive and pan-agriculture approach to climate change issues. The Climate Action Initiative is currently supported by the BC Agricultural Research & Development Corporation and the Investment Agriculture Foundation of BC with funding provided by Agriculture and Agri-Food Canada and the BC Ministry of Agriculture through Growing Forward 2, a federal-provincial-territorial initiative.

Photos in this handout are courtesy of Hatchet & Seed.

