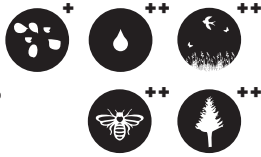


MAARHUIS FARM

LAND USES & ASSOCIATED ECOSYSTEM SERVICES

A beautiful, tidy farm provides a sense of satisfaction, self-sufficiency and joy to the farming family. Farming landscapes also improve physical and mental health for the whole community.

UNDERUTILIZED CORNERS



CULTIVATED



PASTURED



PONDING



ROADS



INFRASTRUCTURE



BARN



Ponding in fields reduces productivity of farm land. It benefits the community by holding water on fields, slowing surface run-off and reducing flooding downstream.

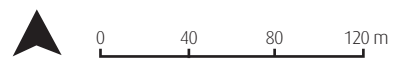
Maintaining a buffer between farm and water helps to ensure soil and nutrients stay on the fields where they belong. Planted native shrubs along the waterway holds soils, filters water, and benefits fish, pollinators and other wildlife. With some management, they can also look tidy and beautiful.

This watercourse helps to drain wet fields. It also provides habitat for important fish and wildlife species including Coho Salmon and endangered Oregon Spotted Frog.

LAND USE TYPES:

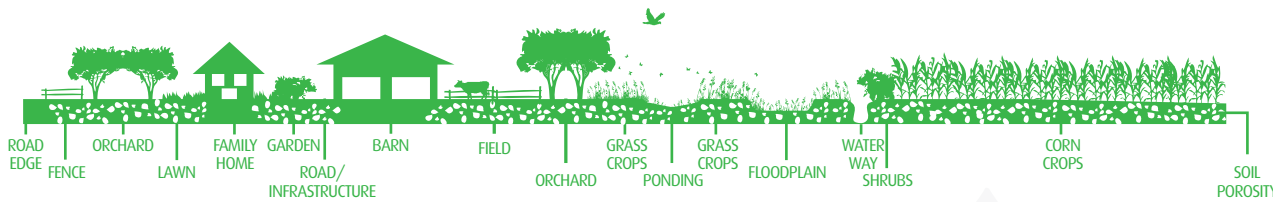
- BARN
- INFRASTRUCTURE
- MIXED USE
- CULTIVATED
- PASTURED
- UNDER-UTILIZED CORNER
- SHRUBS
- WILD GRASSES
- WATERWAY
- TREE OF SIGNIFICANCE
- FAMILY HOME
- RECREATION
- SACRED PLACE
- ORCHARD/GARDEN
- ROAD

ECOSYSTEM SERVICES:



GOODS & SERVICES ON THE FARM

MAARHUIS FARM ECOSYSTEM



PROCESSES



SOIL DEVELOPMENT



WATER CYCLING



AIR CYCLING

GOODS & SERVICES



AIR SERVICES



SOIL DEVELOPMENT



WATER INFILTRATION



CLIMATE REGULATION



MARKET GOODS



AESTHETIC APPEAL



RECREATION OPPORTUNITIES



WILDLIFE AND POLLINATOR HABITAT

BENEFITS



CLEAN AIR

Trees and soil microbes filter air, release oxygen, and store carbon.



DRINKING WATER + FLOOD PROTECTION

Healthy soils filter and hold water like a sponge, soaking up rainfall and releasing it slowly in dry periods to crops and streams.



SHELTER FOR HOMES + CROPS

Shelter-belts protect homes and crops from strong winter winds, and provide habitat for birds, pollinators and other wildlife (including kids!)



HEALTHY FOOD + RESOURCES

Farms produce food, livestock, and wood. Local, nutritious food is the foundation of human health.



INSPIRATION

Farming landscapes provide historical context and sense of identity and place.



PHYSICAL + MENTAL FITNESS

Access for recreation promotes activity and social interaction. Just seeing green landscapes improves physical and mental health.



POLLINATION

30% of foods we eat are pollinated by bees. Native pollinators increase fruit-set in neighbouring farms and gardens.



WILDLIFE

Predators, game and endangered species all find homes on agricultural land.

DISSERVICES

EXCESS WATER

Too much water floods lands and reduces productivity. Swales and ponding lower production, but help to infiltrate water and reduce flooding downstream.

WILDLIFE HABITAT

Wildlife can be pests as well as benefits. Birds and bears can damage a field crop, but increase the aesthetic appeal of a landscape.

ECOSYSTEM GOODS & SERVICES ON
DAIRY FARMS IN THE FRASER VALLEY OF BC

MAARHUIS FARM

CASE STUDY



In addition to food, farmlands produce a range of 'ecosystem services' that benefit people and play a key role in community health.

More 'natural' areas are especially good at producing non-market services. These include everything from rainwater infiltration and soil development to recreation and visual appeal. Farmers bear the cost of managing natural areas without recognition or incentive to maintain, restore and invest in them.

This pamphlet examines land use on Holberg Farm and the ecosystem services it provides.

