

BALANCING FOOD SAFETY AND SUSTAINABILITY

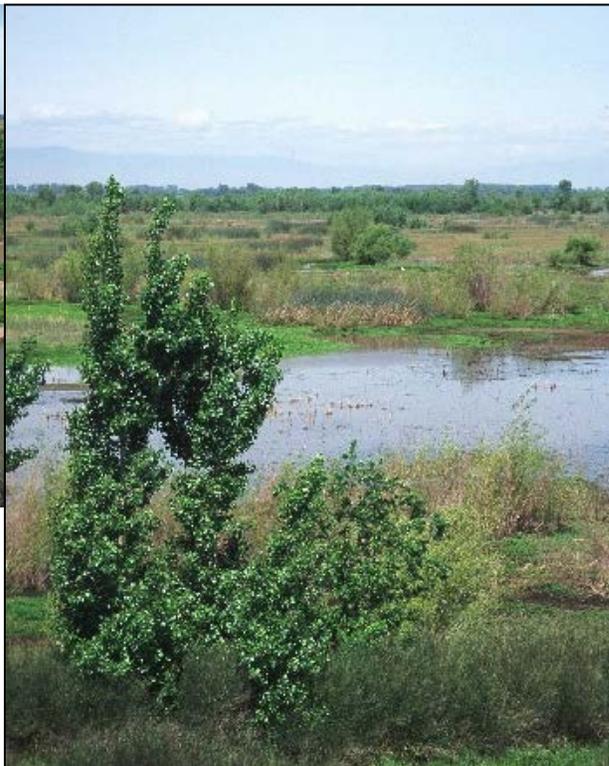
Opportunities for Co-management – Constructed Wetland

*This is one of a series of resource sheets for **food safety auditors** that describe conservation practices commonly used in agriculture's production environment.*

Images of Constructed Wetland¹ in the agricultural environment



Photos courtesy of USDA NRCS



This information will help you to

Recognize Constructed Wetlands in the agricultural environment.

Understand the purpose Constructed Wetlands serve in the agricultural environment.

Recognize the language growers may use to explain why Constructed Wetlands are important in their production environment.

Understand when audit standards may consider Constructed Wetlands as addressing farming impacts on the environment and biodiversity and/or as potential contributors to food safety risk.

¹ This practice is currently listed as [Constructed Wetland #656](#) by the USDA Natural Resources Conservation Service. The NRCS National Practice Standards are updated regularly. Some states may include additional guidance; consult your local NRCS field office.

Constructed Wetlands are shallow water ecosystems designed to simulate natural wetlands. They filter sediment and capture agricultural chemicals to facilitate their degradation. Constructed wetlands are used to treat wastewater and contaminated runoff from agricultural processing, livestock, and aquaculture facilities or for improving the quality of storm water or other water flows from agricultural lands. Wetland plants are established that are suitable for local climatic conditions and tolerant of the contaminated flow the wetland is designed to attenuate.

Advantages¹	Disadvantages
<ul style="list-style-type: none">• Facilitates degradation of agricultural chemicals, including nutrients and pesticides• Capture sediment and nutrients from irrigation return flows• Buffers stormwater runoff for reduced downstream flooding• Improves groundwater recharge• Enhances wildlife habitat, especially when native plant species are used• Provides potential beneficial insect and raptor habitat• Provides recreational value, including hunting and wildlife viewing opportunities	<ul style="list-style-type: none">• May provide habitat for rodent or bird pests or amphibians• Requires a continuous supply of water

¹From [Farm Water Quality Management Practice Sheet](#) Constructed Wetland #656

In some audit standards this practice may help producers to demonstrate knowledge of the impacts of farming on the environment and efforts to maintain biodiversity. It may trigger concerns about animal activity, fecal contamination, proximity to habitat for wildlife and/or water of unknown quality.

Scenarios

Cropped areas adjacent to Constructed Wetlands are included in routine monitoring for fecal contamination and/or animal activity.

Additional Resources

[Balancing Food Safety and Sustainability: Opportunities for Co-management](#)

[Plants in Constructed Wetlands Help to Treat Agricultural Processing Wastewater, 2011](#)

[Molera Treatment Wetland, 2012](#)

[Using Wetlands to Remove Microbial Pollutants, 2015](#)

Additional resources on co-management of food safety and sustainability may be found at on the UC Food Safety Website under the [Pre- and Post-Harvest Produce](#) link. You can also contact Mary Bianchi, UC Cooperative Extension Emeritus Farm Advisor in San Luis Obispo County at mlbianchi@ucanr.edu.

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