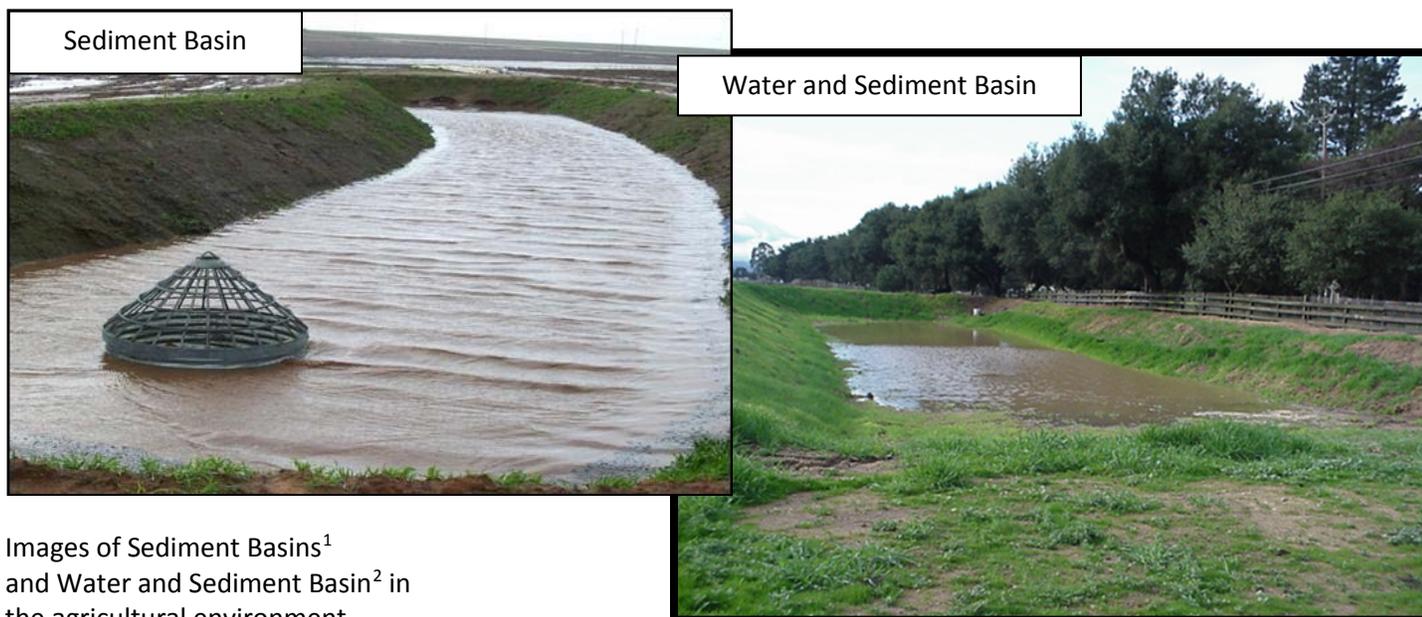


BALANCING FOOD SAFETY AND SUSTAINABILITY

Opportunities for Co-management – Sediment Basins

*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 Sediment Basins¹ and Water and Sediment Basin² in the agricultural environment

This information will help you to

Recognize sediment basins in the agricultural environment.

Understand the purposes sediment basins serve in the agricultural environment.

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

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

Sediment Basins are generally constructed adjacent to but not in the production field.

¹ This practice is currently listed as [Sediment Basin #350](#) 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.

² This practice is currently listed as [Water and Sediment Basin #638](#) 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.

Sediment Basins are constructed to collect and store sediment. They are designed to include a perforated riser pipe that allows water to slowly filter out of the basin. Sediment Basins retain the heavier soil particles and allow runoff water to pass through.

Water and Sediment Control Basins are larger and designed to detain peak runoff water as well as sediment. Earth embankments generally constructed across the slope or at the base of the field to form a sediment trap and water detention basin. The purpose is to trap sediment and manage onsite and downstream runoff. This practice applies to sites where field runoff rates are high and where erosion and control in the fields and ditches is not adequate.

Advantages ¹	Disadvantages
Characteristics that practices share <ul style="list-style-type: none">Retains soil on the propertyProtects surface water quality by retaining some fine-grained sediment that may contain adsorbed pesticides and nutrients	<ul style="list-style-type: none">Requires annual or semi-annual cleaning outLoss of farmable acreageMay cause pollutants to leach into the groundwater
Sediment Basins <ul style="list-style-type: none">Can provide near complete control of off-farm sediment movement	<ul style="list-style-type: none">Sediment must be disposed of within farming operationInstallation and maintenance to control large quantities of sediment may be expensive
Water and Sediment Control Basins <ul style="list-style-type: none">Reduced runoffSlowly meters out peak flows so peak runoff load to nearby waterbodies is reducedReduced gully erosion downstreamReduces sediment leaving property	

¹From [Farm Water Quality Management Practice](#) Sheets Sediment Basin #350; Water and Sediment Control Basin #638

In some audit standards these practices may help producers to demonstrate knowledge of the impacts of farming on the environment including water quality impairments from sediments. They may trigger concerns about animal activity, fecal contamination, proximity to habitat for wildlife, or water of unknown quality.

Scenarios

Recent storm activity filled sediment basin adjacent to crop production, but the basin is designed for water to drain within a few days.

Additional Resources

[Balancing Food Safety and Sustainability: Opportunities for Co-management, 2012](#)

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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