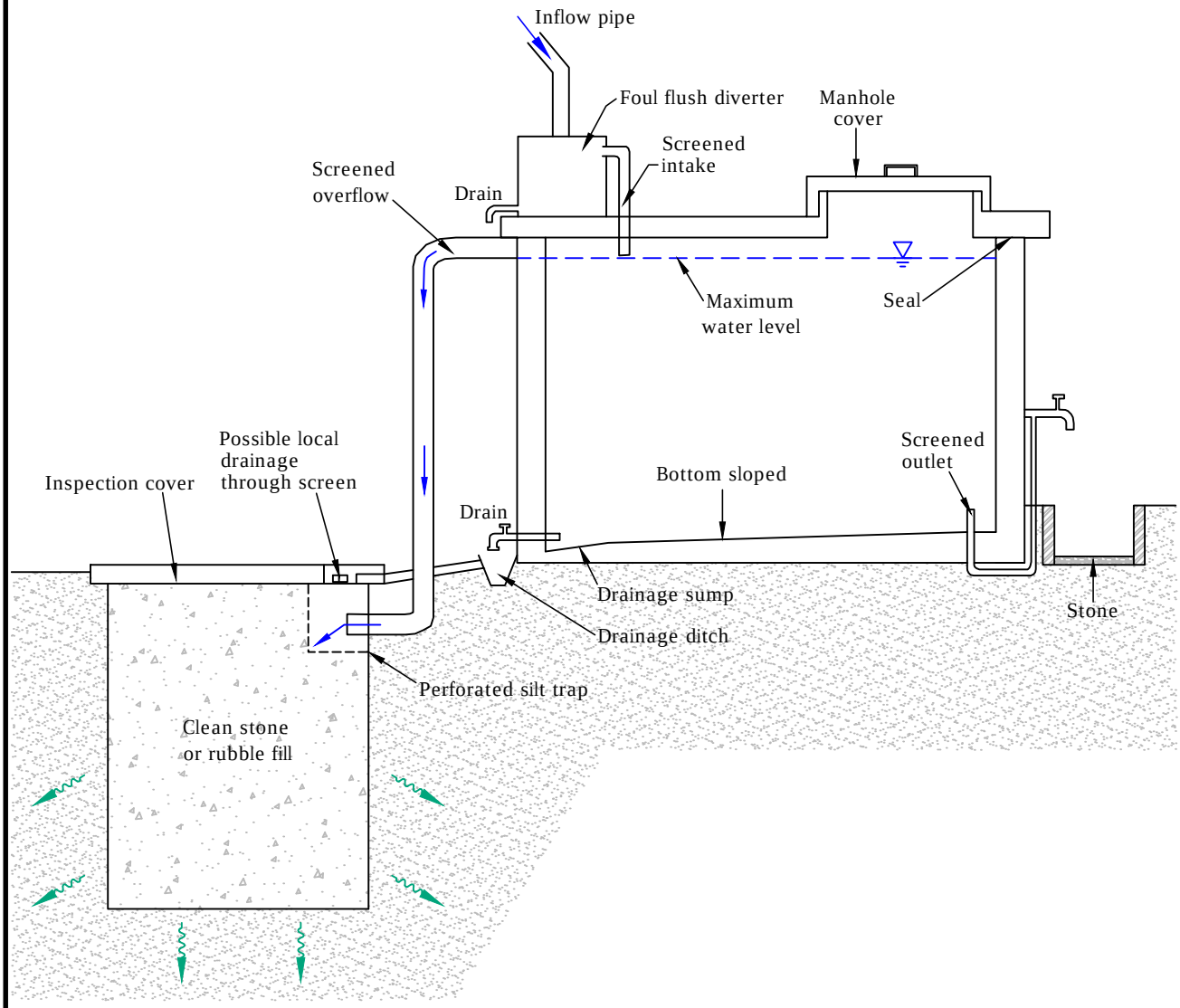

Version	Revision and compilation notes	Date
A	Issued with report	23.10.2009

Client
Caribbean Environmental Health Institute

Project
Antigua and Barbuda Rainwater Harvesting for Groundwater Recharge

Example of rainwater harvesting tank and overflow to small soakaway

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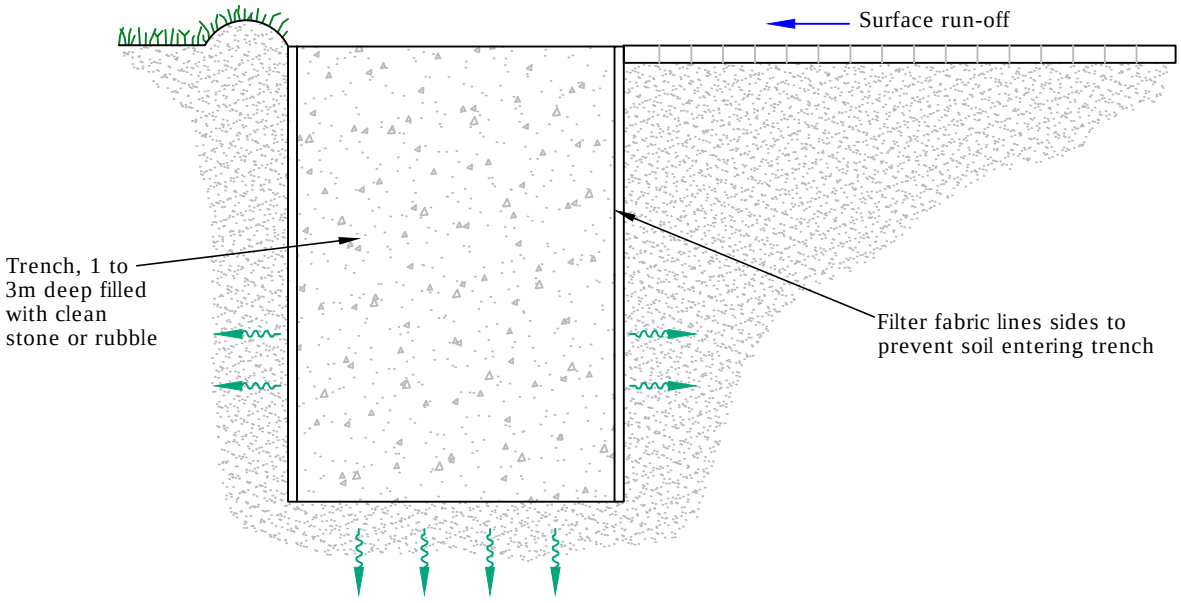
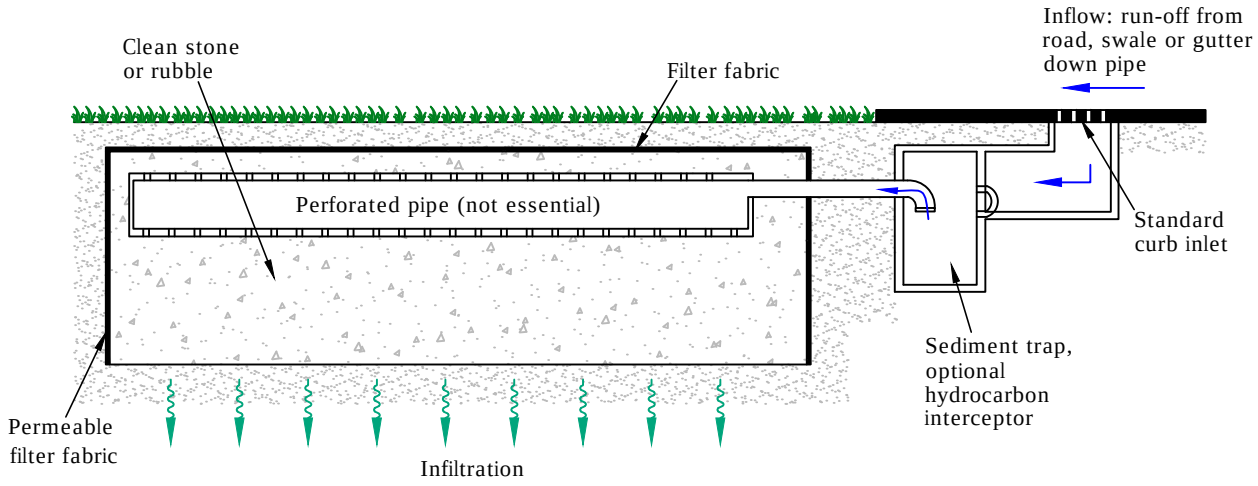
ANTAGWR0909	1	A

A: Infiltration trench with surface inflow (for good quality run-off)



B: Infiltration trench with perforated pipe and capacity for pre-treatment



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Examples of infiltration trenches

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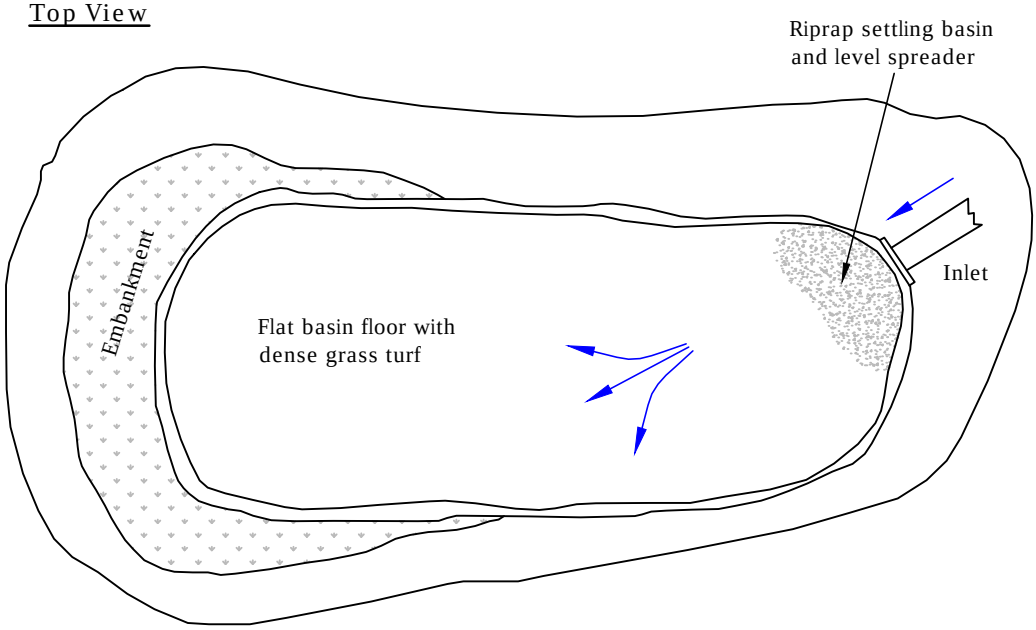
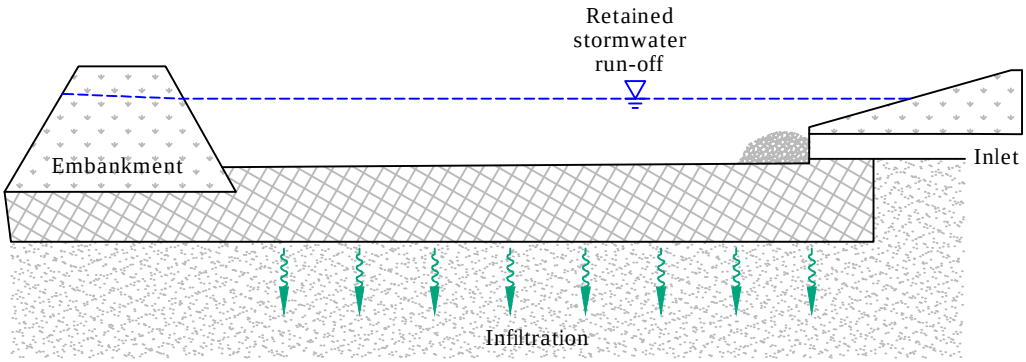
ANTAGWR0909	2	A

Top View



Side View



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Example of an infiltration basin for storm run-off

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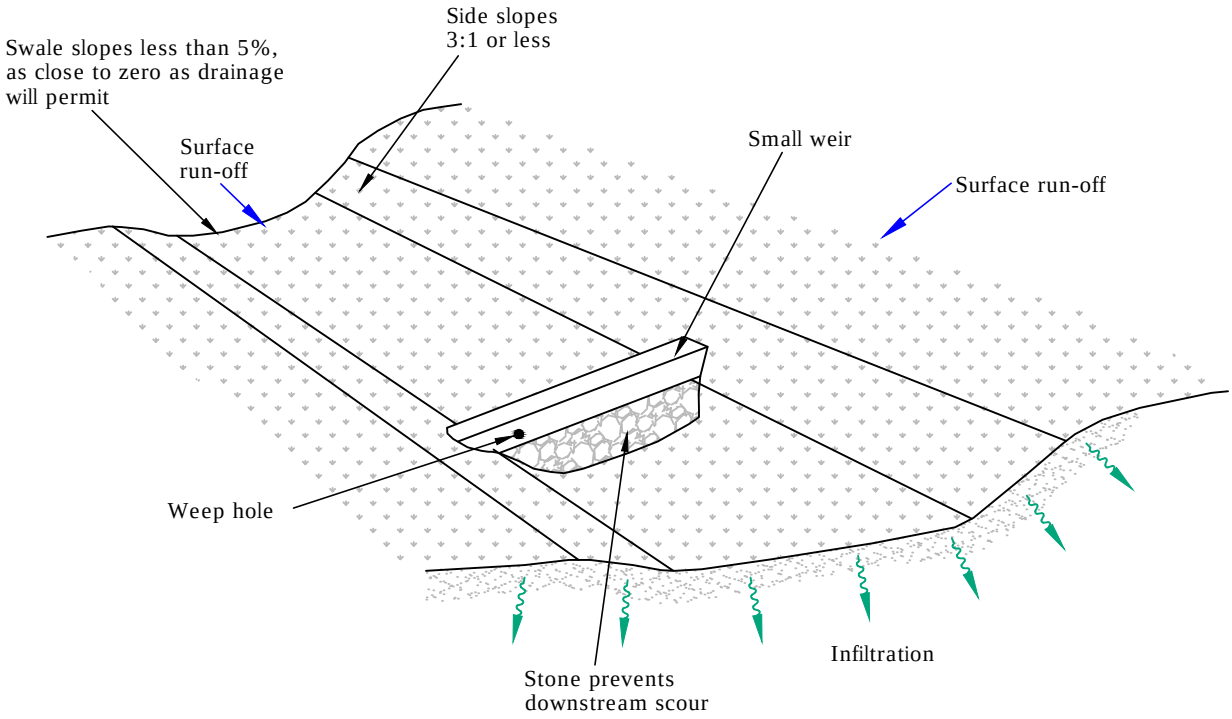
ANTAGWR0909	3	A



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Example of a grassed swale

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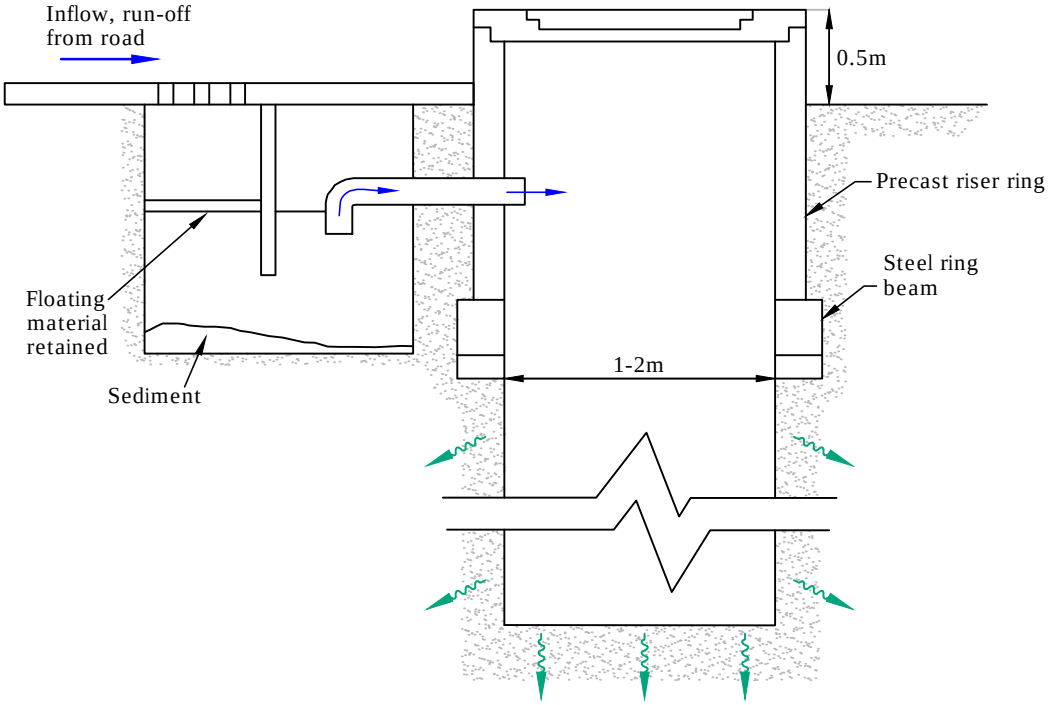
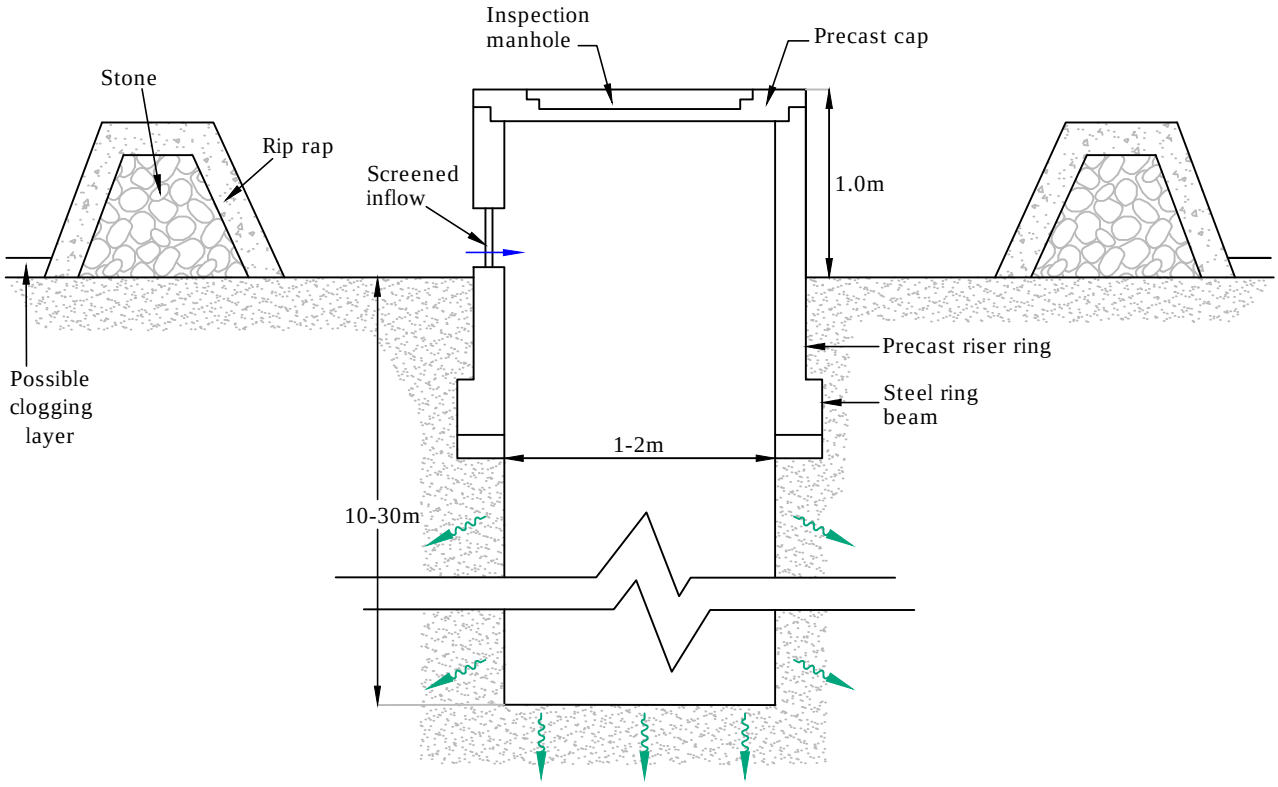
ANTAGWR0909	4	A

A: Recharge well or 'suckwell' for storm drainage



B: Recharge well or 'suckwell' to enhance infiltration in a basin



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Examples of recharge wells

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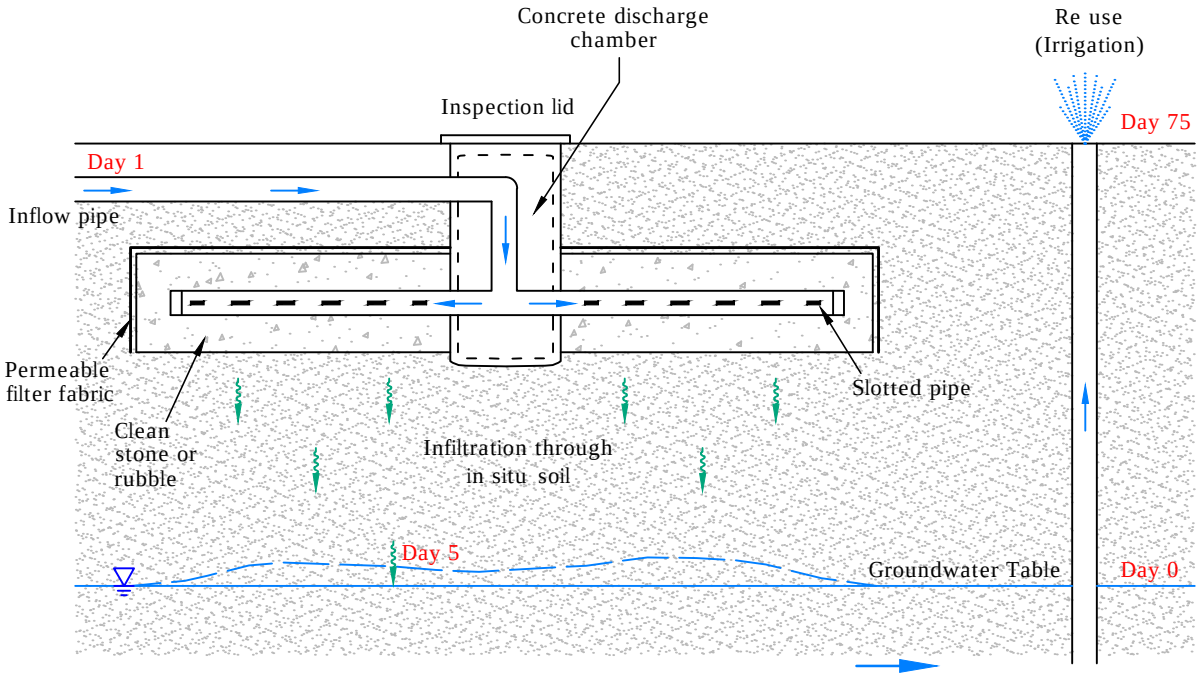
Drawing Ref	Drawing No	Version
ANTAGWR0909	5	A



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Example of infiltration gallery to recharge treated waste water

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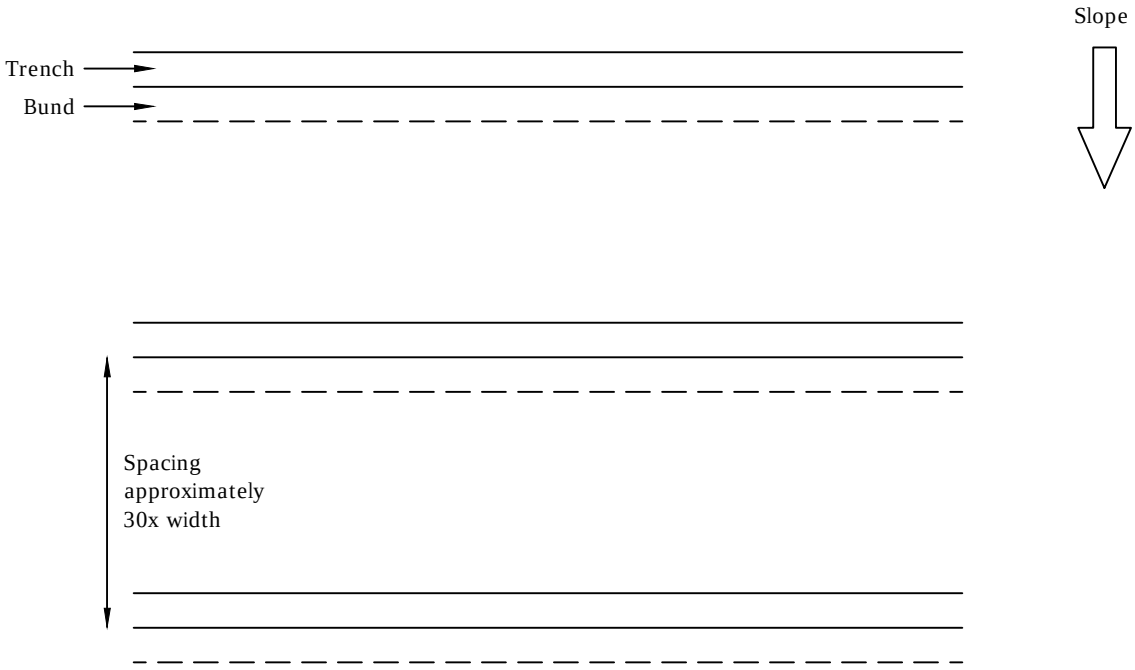
ANTAGWR0909	6	A

Plan



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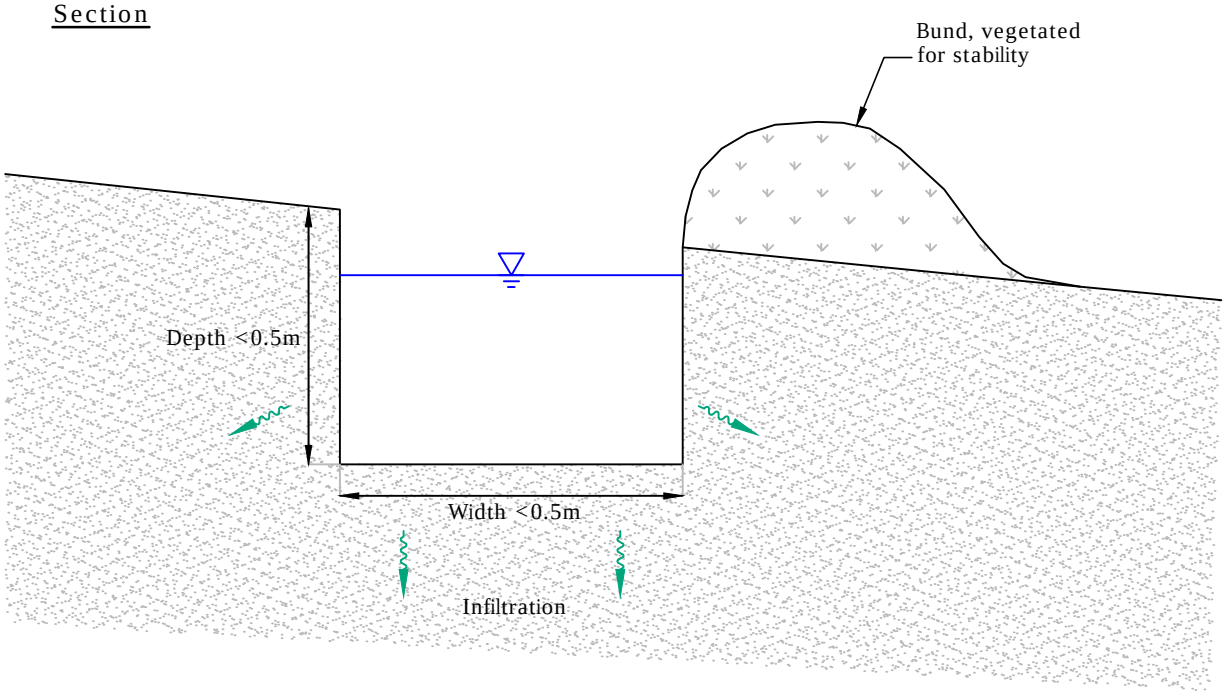

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Example layout of contour trenching with bunds

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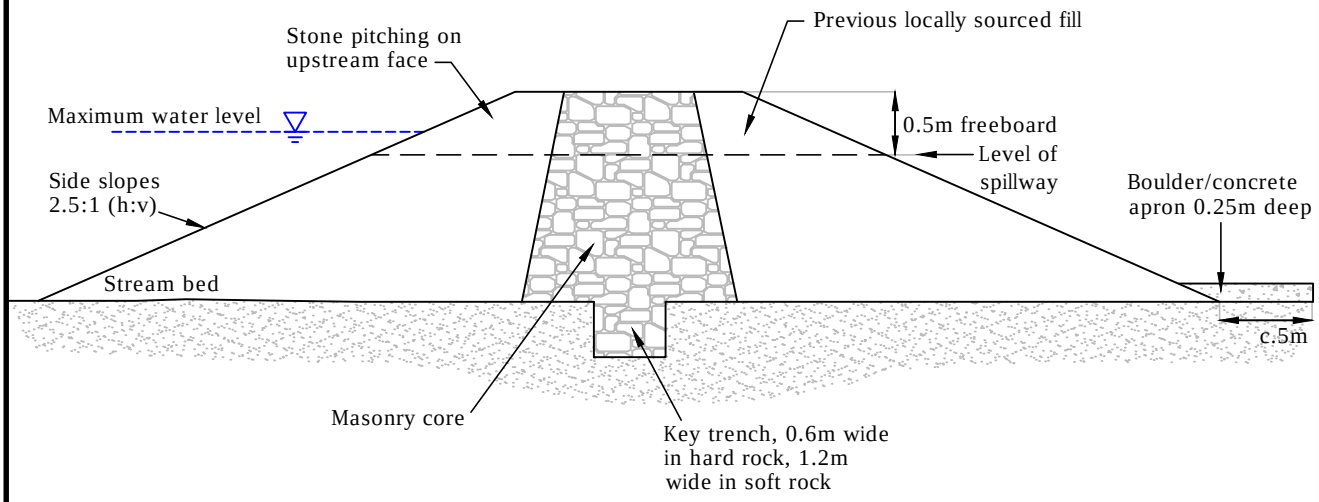

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Example of an earth check dam with a masonry core

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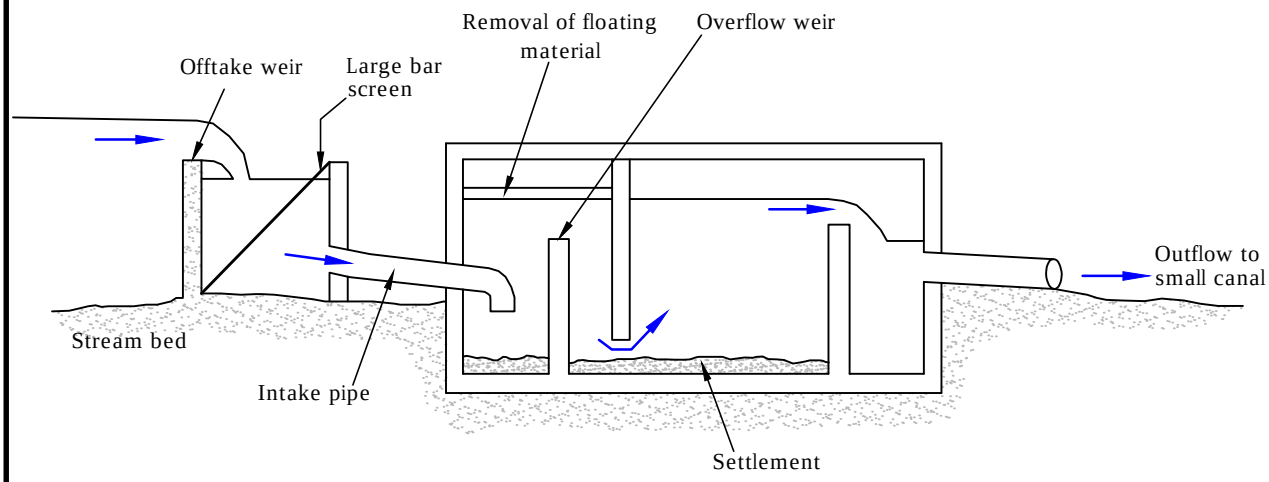
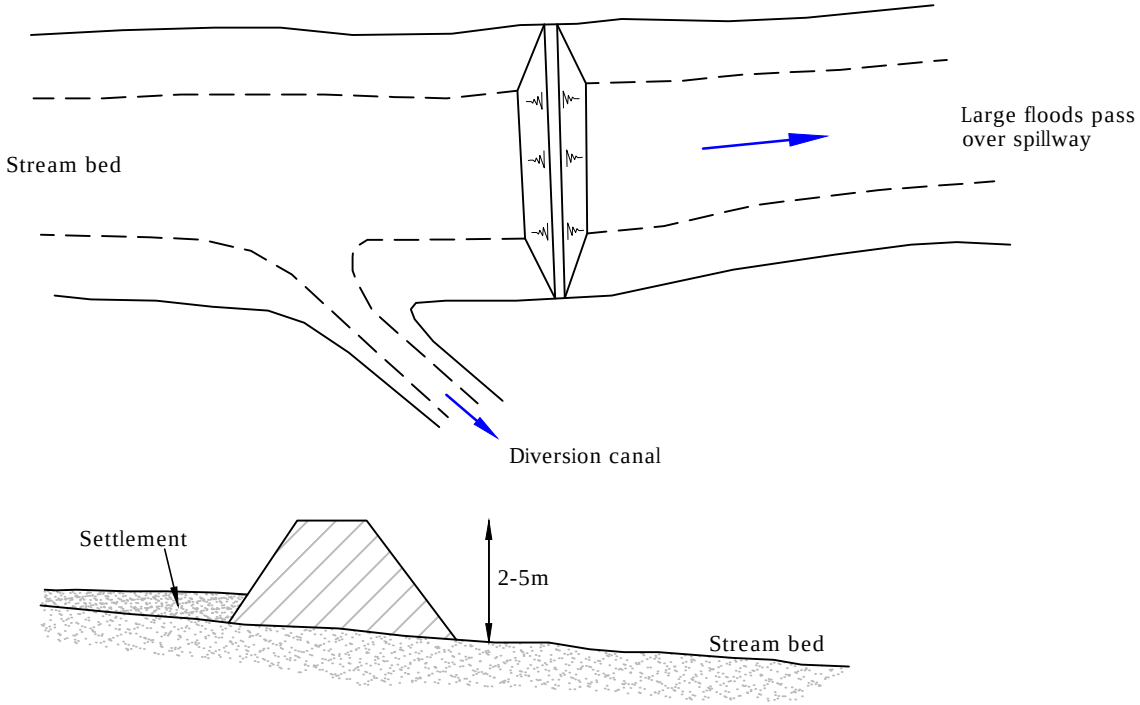
ANTAGWR0909	8	A

A: For small stream of relatively low sediment load



B: Diversion with earth bund across stream bed



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Examples of simple stream offtake/diversion structures

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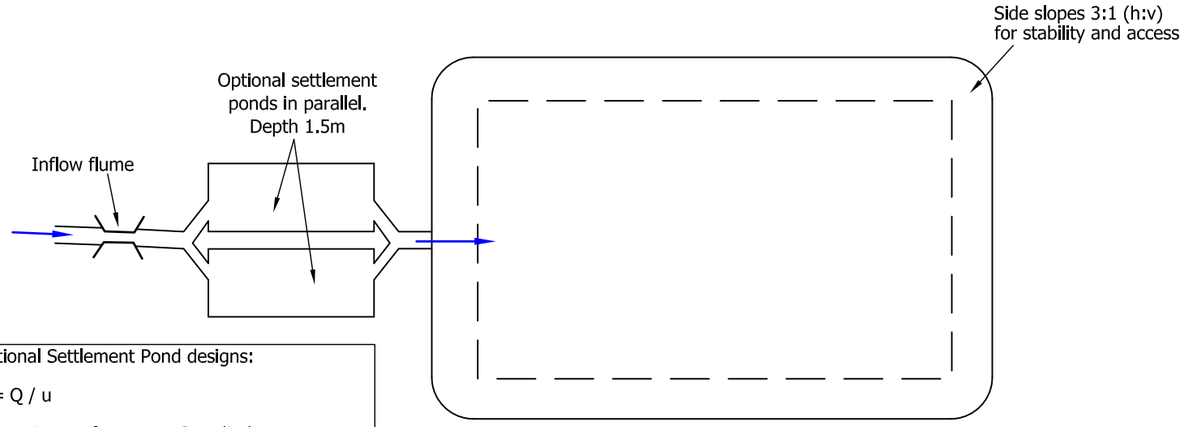
Drawing Ref	Drawing No	Version
ANTAGWR0909	9	A

A: Infiltration basin with settlement pond

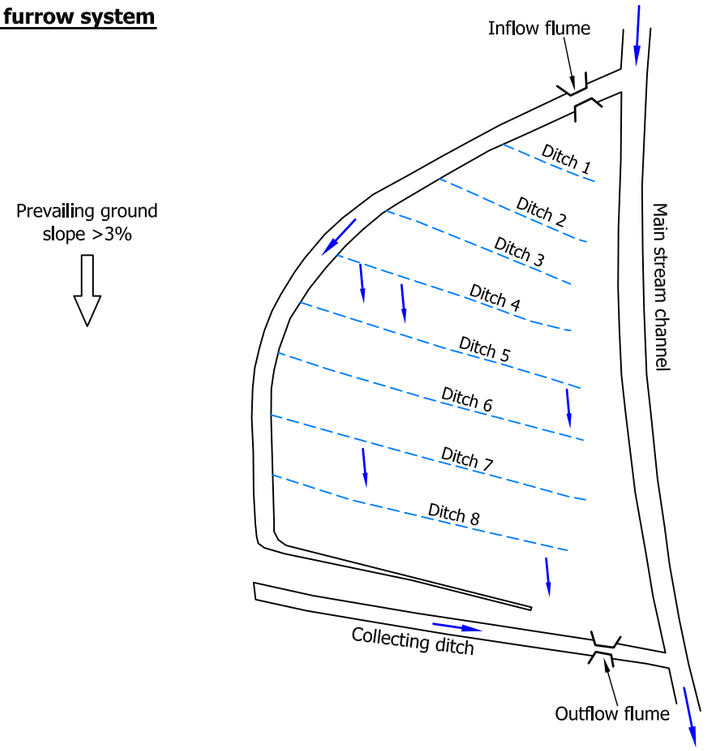


Optional Settlement Pond designs:

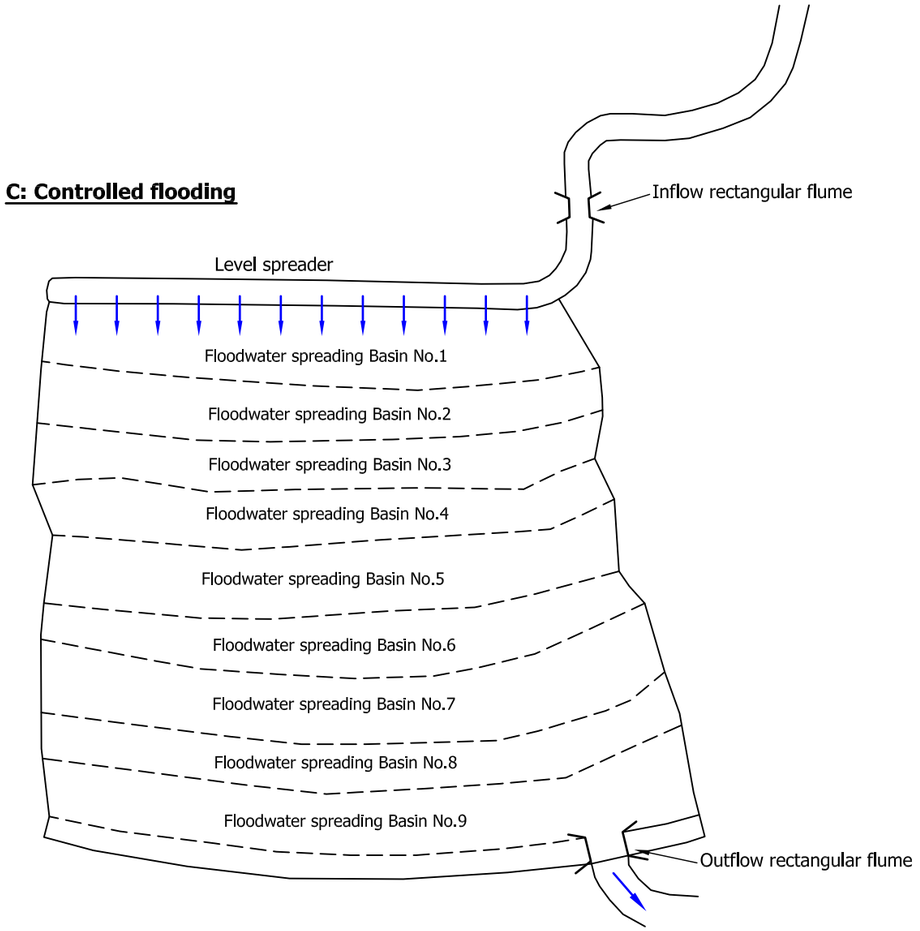
A = Q / u

where A = surface area; Q = discharge rate;
u = settling velocity (depends on sediment type)

B: Ditch and furrow system



C: Controlled flooding



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Examples of offline infiltration systems

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ANTAGWR0909	10	A