



Nursery & Garden Industry
Queensland

Nursery Drainage and Recycling Assessment

There are a number of considerations that need to be taken into account to ensure a drainage and recycling system delivers all the expected benefits. The following provides a checklist that can be used in planning a new drainage and recycling system, or serve to review the current system maintenance requirements:

- What are the sources of nursery wastewater? Production areas, roof areas, roadways and unimproved nursery areas.
- What off-farm sources of water must be accommodated?
- What irrigation events occur?
- What is the amount of irrigation system runoff?
- What rainfall and storm events occur—intensity, frequency and duration?
- How much nursery wastewater will be collected and stored for use?
- Is the drainage water storage of sufficient capacity to store the wettest month's runoff volume?
- For environmental management purposes, how is the first 25 mm of wastewater (first flush) collected?
- What components make up the drainage system? Surface earth drains, surface concrete drains, surface sealed drains other than concrete, pipe drains, slotted drainage pipes, sediment traps, interception/trash traps, settling ponds, water treatment, and collection sumps/storage?
- Is the storage dam lined and/or covered?
- How is the stored nursery wastewater managed?
- How is the stored wastewater treated?
- Is the stored water aerated and circulated?
- What water quality testing program is in place?
- Is a full analytical report of the irrigation runoff and/or storage facility water available? Specifically information on pH, EC, nutrient levels, turbidity, organic content and contaminants.
- What is the quality of collected nursery wastewater? Fertiliser & nutrient levels, disease and pathogen infestation, pesticide & herbicide residues, organic and inorganic particles.
- What wastewater treatments are required?

- What water quality adjustments/ treatments are applied?
- What flow rates are required for disinfection and treatment systems?
- What treatment system waste products are there?
- What recycling options are available?
- Is the wastewater disinfested before reuse?
- What does the disinfection/ treatment system cost to set up, and what are the operational costs?
- What level of automation is used for disinfection and treatment systems?
- What are the off-farm or downstream impacts or benefits? Environmental, neighbours, industry Best Management Practice programs, reduction in water extraction from the environment.
- What methods are used to minimise downstream pollution?
- Does the drainage system meet all necessary state and local regulations?
- Is there a map of infrastructure, e.g. dams, pipe work, storage tanks etc.?
- Does the current drainage system require maintenance e.g. erosion, ponding water?

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