



**Queensland
Government**
Natural Resources
and Water

Code for assessable development for operational works for taking overland flow water

Approved:

A handwritten signature in blue ink that reads "P. Mills".

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A. INTRODUCTION

This code applies for the assessment of a development application under the *Integrated Planning Act 1997* (IPA) for operational works (works) that allow taking overland flow water that are assessable under a water resource plan.

Where a water resource plan, wild river declaration or a regulation states that works that allow taking overland flow water are assessable development, a development permit must be issued under the IPA before construction can commence. Applications for development permits for taking overland flow water will be assessed against the assessment criteria outlined in this code.

A landholder constructing assessable overland flow works must ensure **both** that:

1. they hold a development permit for constructing the operational works; and
2. they hold a water entitlement or are otherwise authorised to take the water that will be taken by the operational works.

Note: Operational works constructed under this code may require other approvals. Refer to Part D of this code – Other legislative responsibilities.

B. PURPOSE OF CODE

The purpose of this code is to ensure that assessable works that allow taking overland flow water:

- are consistent with the landholder’s authority to take overland flow water;
- are consistent with the requirements of the water resource plan;
- promote the efficient use of water;
- do not adversely affect natural aquatic ecosystems, including, for example, natural wetlands;
- are constructed with consideration for their impact on neighbouring properties and downstream users of overland flow water;
- where possible, reverse land degradation; and
- where the operational works are for the purpose of containing contaminated effluent water, ensure the works take no more water than necessary for the purpose and minimise the impact on local and subcatchment flows.

C. SCOPE OF CODE

This code only applies in the areas and to the extent that a water resource plan, wild river declaration or regulation has declared operational works for taking overland flow water to be assessable development.

Overland flow works are categorised as either assessable or self-assessable under the relevant water resource plan in the overland flow division which also details requirements under the *Integrated Planning Act 1997* (IPA). Schedule 8 of the IPA states that operational works for taking overland flow water are assessable development where they are mentioned in a water resource plan as being so.

Overland flow water is defined in the *Water Act 2000*, and means water, including floodwater, flowing over land. It does not include water that infiltrates the soil in the course of normal farm operations, or recycled tailwater.¹

Operational works that take overland flow water include:

- (a) storages, sumps, drains, embankments, channels, pipes and pumps for taking, or that can be used for taking, overland flow water.
- (b) storages that are connected to the works mentioned in paragraph (a); and
- (c) works that make, or that can be used to make, the original connection between the storages mentioned in paragraph (b) and the works mentioned in paragraph (a).

Overland flow works can also include structures used to hold or pond water to increase the infiltration of water, as in the case of ponded pastures. It may also be levees or diversion banks used to direct water into a storage or used to divert water to increase the amount of water that infiltrates the soil (for example, levees designed to increase beneficial flooding).

It **does not include** works for another purpose that incidentally results in a minor increase in the infiltration of water or where there is no benefit to the landholder in terms of additional water taken (for example, where a road or a flood-mitigation levee alters flow paths or small volumes of water captured by contour banks constructed for soil conservation purposes). It also does not include works used solely to take water from a storage to pump or divert the water on to land for irrigation purposes.

Specific provisions are included in this code in respect of:

- 1) The reconfiguration of existing overland flow works;
- 2) New works to take overland flow water under a water entitlement;
- 3) Works for taking agricultural or industrial effluent – that is, works that are primarily for capturing overland flow water that has been or may be contaminated by agricultural or industrial activity, such as water running off agricultural land treated with pesticides – and works for capturing tailwater; and
- 4) Works for taking overland flow water for the purpose of rehabilitating degraded areas.

D. OTHER LEGISLATIVE RESPONSIBILITIES

A person constructing overland flow works must also ensure they comply with any other relevant state and federal laws including, but not limited to:

- *Vegetation Management Act 1999* – this Act places limitations on the clearing of native vegetation. A landholder must ensure they have any necessary permits prior to clearing a site for the construction of a new storage;
- *Environmental Protection Act 1994* – this Act places obligations on landholders in respect of ensuring that their actions do not result in harm to the environment;

¹ The full definition of overland flow water from the *Water Act 2000* is included Part G.

- *Aboriginal Cultural Heritage Act 2004* – this Act places an obligation on people to take all reasonable and practicable measures to ensure an activity they are undertaking does not harm aboriginal cultural heritage;
- *Wild Rivers Act 2005*
- Other provisions of the *Water Act 2000*; and
- Local Town Planning Schemes.

It is the responsibility of the landholder to ensure that the operational works are consistent with all other legislative and regulatory requirements. For example, this code includes certain criteria in respect of the construction of storages for containing contaminated agricultural runoff water. These criteria are primarily designed to ensure that the take of water does not impact on achieving the environmental flow and water allocation security objectives set out in the water resource plan. These criteria do not provide a basis, for example, for assessing whether a landholder will comply with their obligations to avoid causing environmental harm to water through pollution.

E. ASSESSMENT CRITERIA

An application must be assessed against the following requirements. Part 1 applies to all applications by assessing against performance criteria and the suggested acceptable solutions. All applications require a certified report to be produced by a suitable Registered Professional Engineer of Queensland (RPEQ). Part 2 applies to applications that are typically for the reconfiguration of works. Part 3 deals with applications to increase the take of water according different purposes.

Part I – Requirements for all applications

This part applies to all applications. Sections A to B specify performance criteria that the application must satisfy. For each performance requirement, an “acceptable solution” is provided. An application will satisfy the performance criteria if it complies with the acceptable solution. Alternatively, an application may demonstrate a different approach to meet the performance criteria, provided the approach has an equivalent result in terms of performance.

Performance Criteria	Acceptable Solutions
A) Physical impacts of overland flow works on neighbouring properties are to be minimised.	<p>A.1 The overland flow works are contained within the property boundaries.</p> <p>A.2 At full supply level the area inundated is contained within the property boundaries.</p>

Performance Criteria	Acceptable Solutions
	<p>A.3 Any bywash resulting from the overland flow works, and any water diverted away from contaminated areas, exits the property as close as practicable to the same location as which it exited the property prior to commencement of the works.</p>
<p>B) The natural ecosystem and water quality of significant natural wetlands, lakes and springs are to be maintained.</p>	<p>B.1 Works are not to be located within a distance of 1 km of significant wetlands, lakes or springs.²</p>

Consistent with the *Integrated Planning Act 1997 (IPA)*, a person must comply with this code including the following parts when carrying out assessable development. Failure to do so is a breach of this code and is an offence under the IPA.

Application must state authorisation to take

1. The applicant must have an authorisation to take the water that will be taken by the operational works.
2. The application must identify the authorisation under which water will be taken by the works and must include evidence of the authorisation to take using the existing works.
Example: the confirmation of notification of the works or details of the water entitlement.
3. Section 2 does not apply if the authorisation is a statutory authorisation, including an authorisation under a water resource plan.
Example: an authorisation to take for stock and domestic purposes.
4. The proposed works must be consistent with the authorisation.

Applications to include certified report

5. The application must include a certified report, (excluding those for taking 12ML or less of contaminated agricultural runoff water allowed for under section 14 or for rehabilitating degraded land) prepared in accordance with schedule 1, that demonstrates one or more of the following for existing and proposed operational works that allow taking of overland flow water:
 - a. the maximum capacity of the works to store water;
 - b. the maximum rate of take by the works;
 - c. the average annual volume of water taken by the works.

² Note: significant wetlands, lakes or springs is defined in the Section G, Definitions.

6. Section 5 only applies to those applications and those works mentioned in schedule 1.
7. Despite schedule 1, the chief executive may require a certified report to be provided in respect of any other works that the chief executive considers relevant to the application.

Part II – Applications to reconfigure - not increasing the overall take of water

This part applies to an application to make changes to existing operational works that allow taking overland flow water where the changes will not increase the average volume of water taken.

Example: an application involving the reconfiguration of existing works.

No increase in take of water

8. The changes to the existing works and the construction of the new works must not increase any of the following:
 - a. The total capacity of the works to store water
 - b. The total rate at which the works take water
 - c. The total average volume of water taken by the works.

No reconfiguration of natural bodies of water or bunded areas

9. The application must not involve the reconfiguration of the storage capacity of any of the following:
 - a. lakes that were not used for irrigation or other intensive production
 - b. land being used for agriculture, including irrigation or dryland areas, including areas surrounded by levee banks designed to prevent the land becoming inundated (for example, bunded land on the floodplain)
 - c. infield storages.

Reconfigured works to be on same property

10. If the application is a reconfiguration that involves the decommissioning of existing works, or part of existing works, and the construction of new works in a different location, then the new works must be located on the same property as the existing works.

Part III – Applications increasing the take of water

Works for taking under a water entitlement

11. This section applies if the works are for taking water under a water entitlement.
 - a. The works must be consistent with the terms and conditions of the water entitlement, including any of the following:
 - i. The volumetric limit
 - ii. The maximum stored volume of water in megalitres
 - iii. The nominal volume or average annual diversion
 - iv. The maximum rate for taking water.

- b. If the entitlement includes a maximum rate for taking water, then the assessment manager must consider whether to impose a condition requiring that the works include a control device for regulating the rate at which the works take water.

Works for taking contaminated agricultural runoff water and tailwater

- 12. This section applies if the operational works are for taking contaminated agricultural runoff water and the water resource plan authorises the take of contaminated agricultural runoff water or for works for capturing tailwater.
- 13. Applications for storage capacity of not more than 12 megalitres may meet the criteria in section 14. Applications for more than 12 megalitres must meet the following criteria.
 - a. The applicant must demonstrate that the water is unable to be taken under an alternative authorisation, for example by reconfiguring existing works under Part II of this code to provide for the take of water.
 - b. The works must be no larger than necessary to contain contaminated agricultural runoff water or tailwater, for example by:
 - i. using existing storages for taking the water;
 - ii. providing for water taken by the works to be transferred to existing storages.
 - c. The works must:
 - i. minimise the volume of water that becomes contaminated agricultural runoff water, for example by diverting overland flow water away from the land that has been treated with pesticides, fertilizers, or other products that might contaminate water; and
 - ii. allow, where practicable, for water that is not contaminated agricultural runoff water or tailwater to be passed through the works.
 - d. The works must be in accordance with either:
 - i. a certified farm management system (FMS) program approved as a land and water management plan under the *Water Act 2000*. Certification must be against an accredited farm management system program listed in Schedule 2. or
 - ii. a land and water management plan approved under the *Water Act 2000*.
 - e. For the purposes of (d), the application must include a copy of either:
 - i. a copy of the information notice acknowledging approval of a certified FMS as a LWMP under the *Water Act 2000* and the most recent certificate provided to an FMS holder as evidence of certification against the accredited FMS program; or
 - ii. the approved land and water management plan and a copy of the information notice granting the approval.
- 14. For applications for storage capacity not more than 12 megalitres, the minimum requirement is completion of a development application and a brief report on the estimated dimensions and capacity of the storage.

Works for taking as a requirement of an environmental authority or development permit for an Environmentally Relevant Activity

15. This section applies if the overland flow works are for taking water under an authorisation for assessable development in the water resource plan, wild rivers declaration or regulation for taking water under the requirements of an environmental authority under the *Environmental Protection Act 1994* or a development permit for carrying out an environmentally relevant activity, other than a mining or petroleum activity.

The works must capture no more water than necessary to satisfy the requirements of an environmental authority or development permit for carrying out an environmentally relevant activity.

Works for rehabilitating degraded land

16. This section applies if the proposed operational works are for taking water for rehabilitating degraded land under an authorisation in the water resource plan.

- a. If the works will result in an inundated area of greater than 2 hectares, the application must either:
 - i. include a certificate provided by a professional, qualified in soil scientist, stating that:
 1. The soil in the area to be inundated by the works is degraded; and
 2. The works will be an appropriate method for rehabilitating the area; OR
 - ii. Demonstrate that the works are required to fulfil an obligation under the *Land Act 1994*; OR
 - iii. Demonstrate that the works have been approved for funding under the Industries Productivity Enhancement Landcare loans scheme.
- b. The maximum height or depth of any part of the works must be no more than 400mm.

Works in accordance with South East Queensland regional plan water sensitive design under the *Water Resource Plan (Moreton) 2007*

17. This section applies if the proposed operational works are for taking water under the *Water Resource Plan (Moreton) 2007* and for a purpose that the chief executive reasonably considers is for water sensitive design, within the meaning of the SEQ regional plan, for developments in urban areas. The applicant must demonstrate that the works are in accordance with the above requirements.

F. CONDITIONS

18. If the application is approved, the assessment manager may impose any of the following conditions on the development approval:
- a. a condition requiring that the operational works include a device for measuring the take of water;

- b. where the works involve the reconfiguration of existing works – a condition requiring the existing works be decommissioned prior to construction of the new works commencing;
 - c. if the authorisation to take water is for a limited period, a condition that the permit expires on expiry of the authorisation and requiring that the works be decommissioned at that time;
 - d. a condition requiring that a certified report, stating that the works have been constructed in accordance with the design, be provided to the Department within 3 months of completion of the works.
19. The previous section does not limit the conditions that may be imposed on the development permit.
20. For an application that relates to works for taking contaminated effluent water, the assessment manager must impose a condition on the development permit that water taken by the works may only be used for that purpose.
21. For an application that relates to the taking of water for the rehabilitation of degraded land, the assessment manager must impose conditions on the development permit requiring:
- a. That water taken by the works only be used for the purpose of rehabilitating the inundated area; and
 - b. That water taken by the works must not be pumped or diverted to another location.

G. DEFINITIONS

This part defines particular words used in this Code.

Authorisation

Authorisation means the authorisation under which water will be taken by the proposed works, for example a water entitlement or an authorisation under the *Water Act 2000* or the water resource plan.

Overland flow water

1. *Overland flow water* means water, including floodwater, flowing over land, otherwise than in a watercourse or lake—
 - (a) after having fallen as rain or in any other way; or
 - (b) after rising to the surface naturally from underground.
2. *Overland flow water* does not include—
 - (a) water that has naturally infiltrated the soil in normal farming operations, including infiltration that has occurred in farming activity such as clearing, replanting and broadacre ploughing; or
 - (b) tailwater from irrigation if the tailwater recycling meets best practice requirements; or
 - (c) water collected from roofs for rainwater tanks.

Existing works

Existing works means works that allow taking of overland flow water that are in existence at the time of the application.³

Contaminated agricultural runoff water

Contaminated agricultural runoff water means overland flow water that contains, or is likely to contain, excess nutrients or farm chemicals at levels potentially harmful to the quality of water in the watercourse.

Lake

Lake includes a lagoon, billabong or other natural area of open water, whether permanent or intermittent.

Property

Property means one or more contiguous parcels of land, operated as a single enterprise.

Significant wetlands, lakes or springs mean those significant wetlands, lakes or springs:

- (a) Listed in Environment Australia (2001) *A Directory of Important Wetlands in Australia*, Third Edition. Environment Australia, Canberra; or future updates of this document; or
- (b) Listed in a Regional Strategy Plan or Planning Scheme; or
- (c) Shown on a 1:100 000 topographic map.

NOTE: For further information about significant wetlands, refer to schedule 2 below.

Spring

Spring means the land to which water rises naturally from below the ground and the land over which the water then flows.

Stock purposes

Stock purposes means watering stock of a number that would normally be depastured on the land on which the water is, or is to be, used. It does not include the watering of stock held in close concentration for a purpose other than grazing.

Domestic purposes

Domestic purposes includes irrigating a garden, not exceeding 0.25 ha, being a garden cultivated for domestic use and not for the sale, barter or exchange of goods produced in the garden.

Watercourse—

1. Watercourse means a river, creek or stream in which water flows permanently or intermittently—

- (a) in a natural channel, whether artificially improved or not; or

³ A different definition of “existing works” is used in some water resource plans.

- (b) in an artificial channel that has changed the course of the watercourse; but, in any case, only—
- (c) unless a regulation under paragraph (d), (e) or (f) declares otherwise—at every place upstream of the point (*point A*) to which the high spring tide ordinarily flows and reflows, whether due to a natural cause or to an artificial barrier; or
- (d) if a regulation has declared an upstream limit for the watercourse—the part of the river, creek or stream between the upstream limit and point A; or
- (e) if a regulation has declared a downstream limit for the watercourse—the part of the river, creek or stream upstream of the limit; or
- (f) if a regulation has declared an upstream and a downstream limit for the watercourse—the part of the river, creek or stream between the upstream and the downstream limits.

2. Watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.

Water resource plan

Water resource plan means the water resource plan for the area to which the application relates and as subordinate legislation under the *Water Act 2000*.

SCHEDULE 1: CERTIFICATION PROCESS

To be assessed, an application for a development permit, excluding an application relating to works solely for rehabilitating degraded land and for certain applications under section 14, must be accompanied by a certified report of the infrastructure and operating arrangements for:

1. the **proposed works**; and
2. if the application relates to the reconfiguration of existing works or the construction of works for capturing tailwater or contaminated agricultural runoff water – all existing works that are relevant to the application.

The purpose of the certified report is to provide the assessment manager with an accurate representation of:

- the infrastructure on the property,
- how the infrastructure operates and
- the ability of the infrastructure to take overland flow water.

RPEQ certified report

It is the applicant's responsibility to provide the certified report in accordance with the 'Certification guidelines for assessable works that take overland flow water' and which includes a report produced and certified by a RPEQ with relevant farm water supply discipline experience if the proposal is relating to a property for agricultural production.

A copy of the guidelines can be downloaded at:

http://www.nrw.qld.gov.au/water/management/overland_flow/newworks.html#assessable or a copy can be requested from your local NRW office.

Post construction certification

Approved development applications may be subject to a condition requiring a certified report to be provided to the assessment manager following construction of works. This report would confirm that the works had been constructed in accordance with the development permit.

SCHEDULE 2: RECOGNISED BEST PRACTICE PROGRAMS

The following are recognised best practice initiatives for the purpose of section 13:

The Australian Cotton Industry's Best Management Practices Program, administered by Cotton Australia accredited as a farm management system program in the *Water Regulation 2002*. Cotton Australia is prescribed in the *Water Regulation 2002* as the organisation that may provide the farm management system program.

Accreditation recognises the program provides equivalence in the delivery of the land and water management plan provisions under the *Water Act 2000*, subject to the terms of an accreditation agreement between the Department of Natural Resources and Water and the program provider.

SCHEDULE 3: SIGNIFICANT WETLANDS

The term “Significant Wetlands” is defined in section G of this code. An index of the wetlands is listed in *A Directory of Important Wetlands in Australia*, Environment Australia (2001).

Further information including the extent, values and a map of the wetland can be found on the Department of Environment and Water Resources website:

<http://www.environment.gov.au/water/environmental/wetlands/index.htm>