

Review method for Floodplain Management
Plans under Section 43 of the Water
Management Act 2000 (NSW)

FINAL

June 2021

alluvium



Alluvium recognises and acknowledges the unique relationship and deep connection to Country shared by Aboriginal and Torres Strait Islander people, as First Peoples and Traditional Owners of Australia. We pay our respects to their Cultures, Country and Elders past and present.

Artwork by Vicki Golding. This piece was commissioned by Alluvium and has told our story of water across Country, from catchment to coast, with people from all cultures learning, understanding, sharing stories, walking to and talking at the meeting places as one nation.

This report has been prepared by Alluvium Consulting Australia Pty Ltd for DPIE Water under the contract titled 'Review method development and application to floodplain management plans'.

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Contents

1	Introduction – about this document	1
2	Purpose of the Section 43 review	2
2.1	<i>Requirements of the review</i>	2
2.2	<i>Legislative context in developing method for s.43 review of FMPs</i>	2
2.2.1	Objects and Principles of the Act and their relevance to this project	2
2.2.2	Provisions for plan review	3
2.2.4	Relevance to s.43 review of FMPs.....	3
2.2.5	High level logic of FMPs	4
2.2.6	Core and additional provisions for FMPs.....	4
2.3	<i>Definitions and interpretations</i>	5
2.4	<i>Exclusions</i>	7
3	Review method	7
3.1	<i>Review steps</i>	8
	Step 1 – Document the ‘program logic’ for the FMP.	8
	Step 2 - Determine if the FMP was developed in accordance with the core (s.29) and additional (s.30) provisions.....	9
	Step 3 – Identify if the FMP was implemented in accordance with the provisions of the <i>Act</i>	10
	Step 4 – Assess if the FMP was adequate and appropriate against principles of the <i>Act</i>	11
	Step 5 – Consider and review additional information and evidence collected.	13
	Step 6 – Synthesise results.	14
3.2	<i>Consultation</i>	19
3.2.1	Statutory consultation requirements	19
3.2.2	Government stakeholders.....	19
3.2.3	Aboriginal engagement.....	19
3.2.4	Public submissions	20
3.3	<i>Technical Review</i>	20
3.4	<i>Investigation</i>	20
3.5	<i>Interdependencies</i>	21
4	Method updates	22
	Attachment A: Step 1 Table	23
	Attachment B: Step 2 Tables.....	24
	Attachment C: Step 3 Tables.....	28
	Attachment D: Step 4 and 5 Tables	31
	Attachment E: Response Summary Template.....	38

Figures

Figure 1. <i>Overview of steps in the s.43 review of Floodplain Management Plans</i>	7
Figure 2 <i>Floodplain management plan (program logic)</i>	8

Abbreviations and terminology

Alluvium	Alluvium Consulting Australia Pty Ltd
DPIE	Department of Planning Industry and Environment NSW
DPIE EES	Environment, Energy and Science Division of DPIE
DPIE Water	Water Division of DPIE
FMP	Floodplain Management plan
MDBA	Murray Darling Basin Authority
MER	Monitoring, Evaluation and Reporting
MILDRIN	Murray Lower Darling Rivers Indigenous Nations
NBAN	Northern Basin Aboriginal Nations
NSW	The state of New South Wales
NTSCORP	Native Title Service Provider for Aboriginal Traditional Owners in New South Wales and the Australian Capital Territory
The Act	<i>The Water Management Act 2000</i> (NSW)
WSP	Water Sharing Plan

1 Introduction – about this document

This document provides a method for the review of Floodplain Management Plans (FMP) under the requirements of s.43 of the *Water Management Act 2000 (NSW)* (the *Act*). It is designed to be a user guide for NSW public servants or contractors responsible for the s.43 Review(s).

It has been designed to provide clarity and consistency across reviews, able to be applied to any s.43 FMP Review within NSW. It has been designed to ensure that there is consistency in the review method and criteria to ensure that each FMP is reviewed in a consistent manner.

Under s.43, reviews of management FMPs are to be conducted by the minister responsible for administering the *Act*. Therefore, this method document is intended to be used by NSW public servants or contractors in undertaking the Minister's obligations under delegation or any other agency with delegated authority to undertake the required reviews of the FMPs. This may be through the initial review after five years (s.43 (2)) or after the length of its effect, being 10 years (s.43 (1)), to inform the development of a new replacement FMP (s.43 (4)).

2 Purpose of the Section 43 review

2.1 Requirements of the review

Under s.43 (2) of the *Act* the minister is required to review any management plan within the fifth year after it was made. The purpose of a review of a management plan under the *Act* is "ascertaining whether its provisions remain adequate and appropriate for ensuring the effective implementation of the water management principles." (the *Act*, s.43 (2)). The management plan will remain in effect for 10 years (s.43(1)) at which point a review may be required to determine if a new management plan is required to replace the earlier plan under s.43(4).

2.2 Legislative context in developing method for s.43 review of FMPs

2.2.1 Objects and Principles of the Act and their relevance to this project

In common with most modern legislation, the *Act* sets out its Objects (s.3), that is, what the legislation is seeking to achieve. The Objects are an important reference point for clarifying the intent of all parts of the *Act* and would likely be referenced if a court was making a determination about actions and decisions under the *Act*.

In addition, the *Act* provides Water Management Principles (s.5; see Box 1). Importantly, the *Act* requires (s.9(1)):

"It is the duty of all persons exercising functions under this Act:

(a) to take all reasonable steps to do so in accordance with, and so as to promote, the water management principles of this Act, and

(b) as between the principles for water sharing set out in section 5 (3), to give priority to those principles in the order in which they are set out in that subsection".

General water management principles are provided (s.5(2); see Box 1), which focus on (in summary):

- protection of water dependent ecosystems,
- protection of water quality,
- protection of Aboriginal and culturally significant items, features etc,
- maximise social and economic benefits and
- application of adaptive management.

The *Act* provides more specific principles in relation to:

- Water sharing (s.5(3))
- Water use (s.5(4))
- Drainage management (s.5(5))
- Floodplain management (s.5(6)) (see Box 1)
- Controlled activities (s.5(7)), and
- Aquifer interference activities (s.5(8)).

Many other parts of the *Act* (e.g. water planning, implementation and review requirements) refer back to the water management principles in s.5. It is also worth noting that the Natural Resources Commission, other recent reviews, and the report of the Independent Commission Against Corruption have also noted the relevance and centrality of the Objects and Principles of the *Act*.

BOX 1 – Relevant Water Management Principles in the Act

General principles: (The Act s.5 (2))

(a) water sources, floodplains and dependent ecosystems (including groundwater and wetlands) should be protected and restored and, where possible, land should not be degraded, and

(b) habitats, animals and plants that benefit from water or are potentially affected by managed activities should be protected and (in the case of habitats) restored, and

(c) the water quality of all water sources should be protected and, wherever possible, enhanced, and

(d) the cumulative impacts of water management licences and approvals and other activities on water sources and their dependent ecosystems, should be considered and minimised, and

(e) geographical and other features of Aboriginal significance should be protected, and

(f) geographical and other features of major cultural, heritage or spiritual significance should be protected, and

(g) the social and economic benefits to the community should be maximised, and

(h) the principles of adaptive management should be applied, which should be responsive to monitoring and improvements in understanding of ecological water requirements.

In relation to floodplain management: (The Act s.5 (6))

(a) floodplain management must avoid or minimise land degradation, including soil erosion, compaction, geomorphic instability, contamination, acidity, waterlogging, decline of native vegetation or, where appropriate, salinity and, where possible, land must be rehabilitated, and

(b) the impacts of flood works on other water users should be avoided or minimised, and

(c) the existing and future risk to human life and property arising from occupation of floodplains must be minimised.

2.2.2 Provisions for plan review

Of further relevance to the monitoring, evaluation and reporting of performance indicators for Floodplain Management Plans are the provisions of the Act for FMP review:

- s.43(2) *Within the fifth year after it was made, the Minister is to review each management plan (other than provisions dealing with water sharing) for the purpose of ascertaining whether its provisions remain adequate and appropriate for ensuring the effective implementation of the water management principles.*

Note that the provisions of s.43A (3)(a) for review by the Natural Resources Commission apply to Water Sharing Plans and not to Floodplain Management Plans.

2.2.3 Relevance to s.43 review of FMPs

Reviews of FMPs will need to address the following, ‘ascertaining whether its provisions remain adequate and appropriate for ensuring the effective implementation of the water management principles’ for provisions other than those dealing with water sharing (s.43):

- 1) Environmental outcomes with reference to
 - a) Protection of water sources, floodplains and dependent ecosystems (including groundwater and wetlands) (s.5(2)(a))
 - b) Protection and restoration of habitats, animals and plants that benefit from water or are potentially affected by managed activities (i.e. water sharing rules) (s.5(2)(b)) and s.5(3)(a))
 - c) Protection and enhancement of water quality (s.5(2)(c)) and s.5(3)(a))
 - d) Consideration and minimisation of cumulative impacts of water management licences and approvals and other activities on water sources and their dependent ecosystems (s.5 (2)(d)) and s.5(3)(a))
- 2) Protection of Aboriginal cultural, heritage or spiritual significant features (s.5(2)(e) and s.5(2)(f))

- 3) Protection of other cultural, heritage or spiritual significant features (s.5(2)(f))
- 4) Maximisation of social benefits (s.5(2)(g))
- 5) Maximisation of economic benefits (s.5(2)(g))
- 6) Principles of adaptive management (s.5(2)(h))(For example, a prioritisation criterion could be where there are known issues with existing rules not being effective, or needing attention from monitoring, evaluation, research or other investigation. These known issues might be identified through DPIE’s own adaptive management systems, issues register or may be identified from Natural Resources Commission audits or reviews, or from other investigations and reviews.)
- 7) Improvements in understanding of ecological water requirements (s.5(2)(h)) (For example, these may arise from research and improved scientific understanding or from monitoring and evaluation by DPIE Water, DPIE EES, DPI Fisheries, MDBA or CEWO).
- 8) Avoiding or minimising land degradation (s.5(6)(a)), including
 - a) soil erosion,
 - b) compaction,
 - c) geomorphic instability,
 - d) contamination,
 - e) acidity,
 - f) waterlogging,
 - g) decline of native vegetation
 - h) salinity (where appropriate)
 - i) rehabilitation of land (where possible)
- 9) avoiding or minimising impacts of flood works (s.5(6)(b)), and
- 10) minimising existing and future risk to human life and property arising from occupation of floodplains (s.5(6)(c))

The FMP Review Method provides guidance on how these can be evaluated against available evidence sources to ‘ascertain whether its provisions remain adequate and appropriate for ensuring the effective implementation of the water management principles’ (s.43).

2.2.4 High level logic of FMPs

The Act (s.35(1)) provides:

A management plan must include the following components:

- a) *a vision statement,*
- b) *objectives consistent with the vision statement,*
- c) *strategies for reaching those objectives, [in practical terms, these are the rules of the plan]*
- d) *performance indicators to measure the success of those strategies.*

The overall logic provided by s.35 (plan vision, objectives, strategies and performance indicators) can be used to develop a more specific plan logic. This more specific plan logic can articulate how the plan provisions (strategies, rules, obligations) will give effect to (‘reach’) the objectives of the FMP (s.35), while also ‘ensuring effective implementation’ (s.43) of and being ‘in accordance with’ and ‘promoting’ (s.9) the water management principles (s.5) and supporting the Objects of the Act (s.3) as they relate to floodplain management plans. This specific logic may also assist in the planning process to identify any gaps in the FMP’s promotion of the principles.

2.2.5 Core and additional provisions for FMPs

The Act outlines a set of core and additional provisions for a management plan to the extent to which they deal with floodplain management (s28). S.29 and s.30 outline the provisions that an FMP should deal with. The core provisions (s.29) are the provisions that the FMP must deal. The additional provisions (s.30) are the provisions the FMP may deal with an as such the requirement for inclusion will considered on a case-by-case basis.

Core provisions: (The Act s.29)

The floodplain management provisions of a management plan for a water management area must deal with the following matters—

- (a) identification of the existing and natural flooding regimes in the area, in terms of the frequency, duration, nature and extent of flooding,*
- (b) the identification of the ecological benefits of flooding in the area, with particular regard to wetlands and other floodplain ecosystems and groundwater recharge,*
- (c) the identification of existing flood works in the area and the way they are managed, their benefits in terms of the protection they give to life and property, and their ecological impacts, including cumulative impacts,*
- (d) the risk to life and property from the effects of flooding.*

Additional provisions: (The Act s.30)

The floodplain management provisions of a management plan for a water management area may also deal with the following matters—

- (a) proposals for the construction of new flood works,*
- (b) the modification or removal of existing flood works,*
- (c) restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to the following—*
 - (i) the passage, flow and distribution of floodwater,*
 - (ii) existing dominant floodways and exits from floodways,*
 - (iii) rates of flow, floodwater levels and duration of inundation,*
 - (iv) downstream water flows,*
 - (v) natural flood regimes, including spatial and temporal variability,*
- (d) the control of activities that may affect or be affected by the frequency, duration, nature or extent of flooding within the water management area,*
- (e) the preservation and enhancement of the quality of water in the water sources in the area during and after flooding,*
- (f) other measures to give effect to the water management principles and the objects of this Act,*
- (g) such other matters as are prescribed by the regulations.*

2.3 Definitions and interpretations

This section aims to define several key terms in the context of s.43 review(s) on floodplain management plans under s.43 of the Act.

Defining terms with ordinary meaning

The Act does not provide a complete list of definitions for key terms. Where a word is not defined in statute, we look at its ordinary meaning (e.g. from a dictionary), in the context in which it is used in the legislation. If it is a technical term, we also look at its accepted technical meaning.

Assessment terminology

The s.43 review method has been designed for the purpose of ascertaining whether the FMPs provisions remain adequate and appropriate for ensuring the effective implementation of the water management principles. The review has also been designed to determine if the plan has met the requirements of a plan under s.35 of the

Act, as well as if it has dealt with the provisions under s.29 and s.30 of the Act. The details of how the FMP is to be assessed against the requirements is shown below in Table 1.

Table 1. Assessment definitions

Item	Detail
FMP Logic (s.35)	
✓	The item as listed as a requirement under Section 35 of the Act has been included in the FMP.
✗	The item that is listed has not need included in the FMP.
Provisions (S.29 and s.30)	
✓	The FMP utilises clearly defined and enforceable strategies to deal with all of the items detailed within the provision being assessed.
○	The FMP has either dealt with some of the aspects of the provision but not all, or there is detail held in the FMP on the provision but has not dealt with it through clearly defined strategies.
✗	The FMP does not contain detail on any of the aspects of the provision being assessed.
Principles (s.5)	
Adequate and appropriate	The FMP ensures the effective implementation of the principle by being an appropriate legislative tool of an adequate level of detail and enforceability. The FMP has a strategy for implementing the water management principles that uses prescriptive language, measurable detail, and enforceable rules. The FMP meets the requirements of the Act and is fit for purpose.
Adequate but not appropriate	The FMP holds the level of detail and rules for ensuring the effective implementation of the water management principles but is not appropriate to be enforced as a legislative tool. The FMP may hold the detail and information that could be used to implement the principles but may not be enforceable, have measurable standards and criteria that would allow the effective implementation. The FMP may hold up to date and clearly defined information, but the FMPs strategies may not be suited for the management of the floodplain and the implementation of the water management principles.
Appropriate but not adequate	The format, wording and enforceability of the plan may be appropriate for a legislated FMP, but the detail, rules and criteria are not to a level that allows effective implementation of the plan. The FMP may be suited for the management of the floodplain and implementing the water management principles, but the information may be outdated or insufficient.
Included but not adequate or appropriate	The FMP includes information on the water management principle, but it is not in a way that provides any detail on strategies for its implementation, criteria or rules that can be use or any other planning detail that would allow effective implementation.
Not included so not adequate or appropriate	The FMP does not make mention of the water management principle and it does not appear to have informed its development.

These definitions should be discussed as part of Government agency consultation to ensure the best fit definitions are used.

2.4 Exclusions

The review of the FMP will not:

1. Conduct an audit of the FMP, rather it will draw on the previously completed audit as part of the review. Audit(s) will be required to be completed (s.44) but is separate from the s.43 review(s).
2. Consider the process applied to develop the FMP. This review focuses on the effective implementation of the FMP, and does not consider how effective the development of each FMP was.
3. Review the outputs of hydraulic modelling or be conducting a review of the models themselves.
4. Examine accuracy of spatial data. The review will identify where issues have been raised in the process of conducting the review that relate to accuracy and the impact that it may have had on the effective implementation of the FMP.
5. The s.43 review(s) will identify issues as they are raised and include them in the assessment but may not provide a recommended solution.
6. Conduct a review of the technical detail, including hydraulic modelling and delineation of any floodway network, zoning of the floodplain of the FMP boundary. This should be conducted prior to the s.43 review to form a source of evidence.

3 Review method

s.43 (2) requires “ review ... for the purpose of ascertaining whether [the FMP’s] provisions remain adequate and appropriate for ensuring the effective implementation of the water management principles”.

The s.43 review(s) of FMPs involves six steps (Figure 1). The review process acts in conjunction with a consultation process with relevant agencies (such as the representative agency of the Minister for the Environment and the Natural Resources Commission), public submissions and review of relevant evidence from outside the FMP.

The review method steps are each intended to assess a line of evidence or assessment for part of the s.43 review requirements. The steps to be undertaken are:

- **Step 1** will aim to assess the Floodplain Management Plan logic (how its provisions and action contribute to achieving outcomes and objectives)
- **Step 2** assesses if the FMP is in accordance with the Act requirements for FMP provisions
- **Step 3** takes the outcomes of the Natural Resource Commission’s s.44 audit of FMP if it was able to be implemented
- **Steps 4 and 5** assess whether the FMP is adequate and appropriate in accordance with the principles (s.5)
- **Step 6** synthesises the information to form an assessment regarding whether the FMPs provisions remain adequate and appropriate for ensuring the effective implementation of the water management principles and make recommendations based on the assessment.

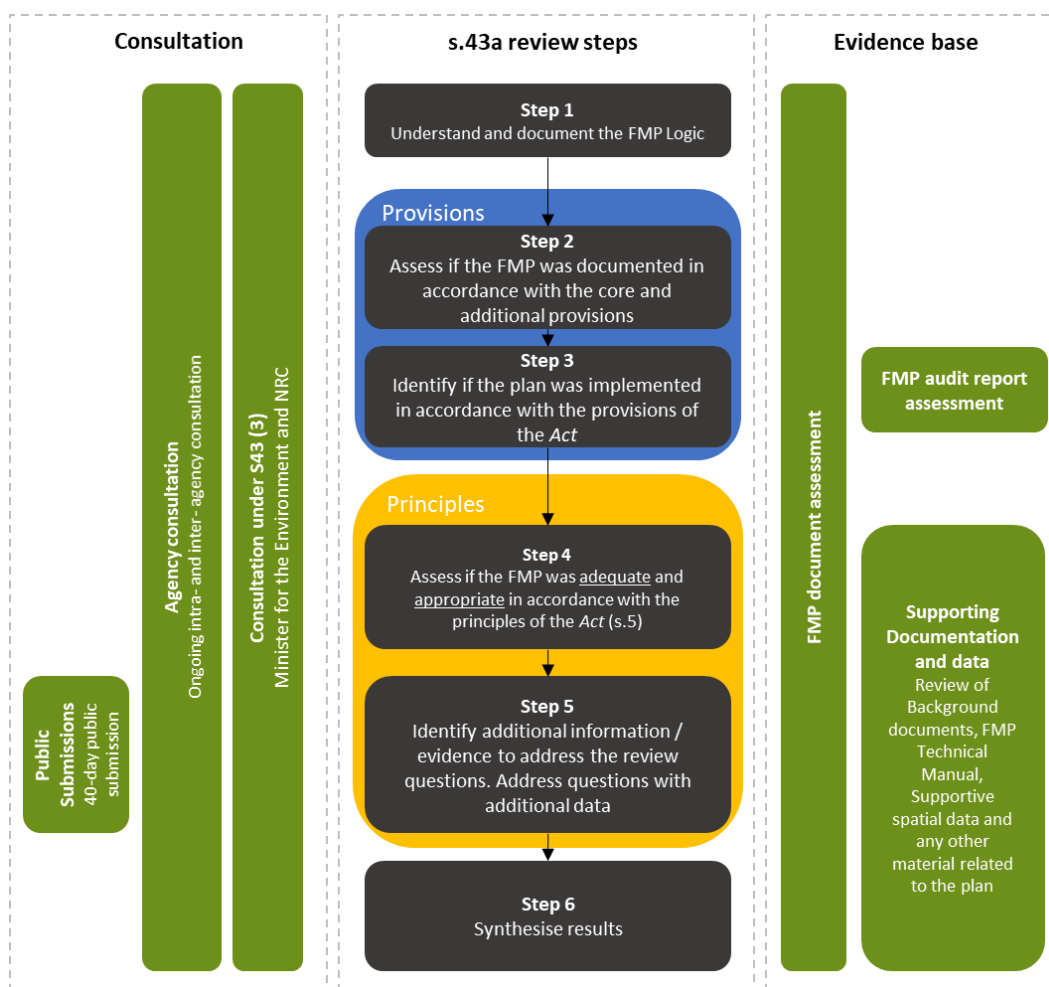


Figure 1. Overview of steps in the s.43 review of Floodplain Management Plans

3.1 Review steps

Step 1

Understand and document the FMP

Step 1 – Document the ‘program logic’ for the FMP.

Step 1 will document the program logic for the FMP, i.e. how the FMP takes action (through strategies) to achieve the objectives and vision. The logic will also be mapped to identify alignment to the principles and objects of the Act (s.5 (2,6)).

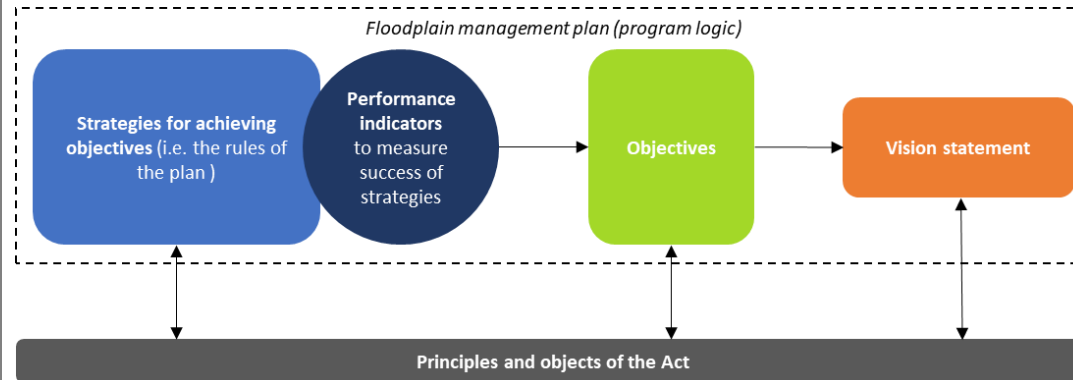


Figure 2 Floodplain management plan (program logic)

1. From the FMP, identify and document the (s.35 requirements):

- a vision statement,
- objectives consistent with the vision statement,
- strategies for reaching those objectives,
- performance indicators to measure the success of those strategies.

Assess the FMP against the requirements table in Attachment A. If any of the requirements are not present the FMP cannot be recommended to extend.

2. Map the identified strategies to each objective/s.

3. Map the objective/s to the vision statement.

Step 2

Assess if the FMP was in accordance with the core and additional provisions

4. Document any assumptions that are outlined in the FMP that relate to the program logic.
5. Critically review the program logic for the FMP. Consider:
 - Are all elements of the vision covered in the objectives?
 - Do all strategies align to one (or more) objectives?
 - Does the logic align to the principles and objects of the Act?
 - Are the assumptions appropriate?
 - Are the performance indicators specific, measurable and timebound?
6. Determine where and how the program logic aligns to the principles and objects of the Act (s.5 (2,6)).

Step 2 - Determine if the FMP was developed in accordance with the core (s.29) and additional (s.30) provisions

Step 2 is about determining if the FMP, as it was developed, dealt with the core (s.29) and the additional (s.30) provisions.

1. Gather evidence base for assessment – floodplain management plan, any referenced documents that support the FMP such as implementation guidelines, implementation guidelines, background documents
2. Refer to the core and additional provisions under the *Act*
3. Document evidence of where the FMP addresses each core provision, and each additional provision.
4. Critically review the adequacy of the provisions that are documented in the FMP. Consider:
 - Is the level of detail regarding each provision clear, specific and easy to find?
 - Is the information still relevant?
 - Are there sufficient rules to satisfy the provisions of the *Act*?
 - Were the provisions adequate and appropriate at the time of commencement, and have any legislative or departmental changes affected the adequacy?
5. Determine the extent to which the provision **is dealt with** (i.e. dealt with / partially addressed / not dealt with) in accordance with the **criteria table included in Attachment B**
6. Where the provision is addressed, provide evidence and comment regarding the assessment. Comments should draw on the questions in the Critical review (Step 2.5)

Note:

- An example table for the assessment of provisions is included in Attachment B

Step 3

Identify if the plan was implemented in accordance with the provisions of the Act

Step 3 – Identify if the FMP was implemented in accordance with the provisions of the Act

The findings of a s.44 audit (by NRC) determine whether the FMP was implemented ('whether the plan was given effect'). This step of the s.43 review is about using the s. 44 audits findings, as one evidence base for s.43 review.

The audit findings may be relevant for the following reasons:

- Some implementation difficulties may be due to the adequacy and appropriateness of the FMP. This information may inform the review of whether the FMP is adequate and appropriate to **implement the principles**.
- However, the FMP may be adequate and appropriate to **implement the principles** even if the audit found provision/s have not been implemented for other reasons not relevant to adequacy and appropriateness of the FMP.
- A FMP that is not adequate and appropriate to implement the principles may be implemented perfectly. This may shed light on what needs to change in the FMP if you can compare it to evidence showing the FMP is inadequate.
- Theoretical observation of the FMP provisions may also lead a determination regarding if FMP provisions are adequate.
- The root cause identified in audit report as to why the FMP wasn't implemented may be useful in the review insofar as they lead to inadequate provisions rather than just administration / circumstantial cause.
- An audit report may say whether MER, flood monitoring, environmental monitoring was undertaken. This may help understand if the FMP is adequate or not (only if it is implemented). Some extrapolation may be needed where there is partial implementation using the theoretical observation as to whether a provision should deliver its intended outcome.

The process stages for step 3 are:

1. Gather evidence base for assessment – s.44 Audit Report
2. Refer to the core and additional provisions under the Act
3. Critically review the implementation of the provisions in the FMP. Consider:
 - i) Whether the source of a non-implementation finding identified in the Audit is due to the adequacy and appropriateness of the FMP.
 - ii) Whether the non-implementation findings identified at point (i) are relevant to the effective implementation of the water management principles
 - iii) any issues identified in the audit findings about whether the FMP fails to clarify roles and responsibilities in a way that prevents effective implementation of the water management principles.
4. Determine to what extent the FMP was implemented (i.e. implemented/ not implemented due to the FMP / not implemented for other reasons / not reviewed) in accordance with provisions. See **criteria table in Attachment C.**
5. Where the provision is implemented (or not), provide evidence and comment regarding the assessment. Comments should draw on the questions in the Critical review (Step 3.4).

Step 4

Assess if the FMP was adequate and appropriate in accordance with the principles of the Act (s.5)

6. Emphasise the comments regarding the role the FMP played in this assessment to determine if it was considered implementable.

Note:

- It is outside the scope of the review to audit the implementation of the FMP. The review is dependent on an Audit having already been completed by the Natural Resource Commission under S44 of the Act
- Wherever possible the s.43 Review and the s.44 Audit should be conducted simultaneously to allow the most efficient delivery of both programs
- An example table for the assessment of the provisions using the Audit report is included in Attachment C

Step 4 – Assess if the FMP was adequate and appropriate against principles of the Act

Step 4 is a theoretical, desktop observation of the adequacy and appropriateness of the FMP provisions to achieve the water management principles.

Step 4 is a desktop assessment to determine if the management plan is adequate and appropriate for ensuring the effective implementation of the general principles to;

- a) *Ensure the effective protection and restoration of water resources floodplains and dependent ecosystems*
- b) *Protect habitat animals and plants that benefit from water (across the floodplain) or potentially affected by managed activities (flood work)*
- c) *Protect (or enhance) water quality of all sources*
- d) *Consider and minimise cumulative impacts of flood work approvals on water sources and their dependent ecosystems*
- e) *Protect geographical and other features of Aboriginal significance*
- f) *Protect geographical and other features of major cultural heritage or spiritual significance*
- g) *Maximise social and economic benefits to the community*
- h) *Respond to monitoring and improvements in understanding of ecological water requirements.*
- i) *Apply the principles of adaptive management*

and to determine if the management plan adequate and appropriate for ensuring the effective implementation of the floodplain management principles to:

- a) *Avoid or minimise land degradation from floodplain management (ie flood works)*
- b) *Avoid or minimise the impacts of flood works on other water users*
- c) *Minimise existing and future risk to human life and property from occupation of floodplain*

Step 4 will assess if the FMP has the required detail to be effective in implementing the principles, and if the data, criteria and rules used are the best fit for this purpose. Step 4 assesses the FMP's adequacy and appropriateness. The FMP may be adequate and appropriate even if the audit found it is not implemented. However, the audit findings are relevant because some

implementation difficulties may be due to the adequacy and appropriateness of the FMP. This may inform whether it is adequate and appropriate to implement the principles.

Steps under Step 4 are as follows:

1. Gather evidence base for assessment – floodplain management plan, any referenced documents on implementation process, implementation guidelines, background documents.
2. Refer to the general and floodplain management principles under the *Act*.
3. Document the strategies to achieve the objectives (i.e. plan, rules, criteria and source data as it is outlined within the FMP) in relation to each of the general principles (s.5(2)) and floodplain management (s.5 (6)) principles.
4. Critically review the FMP and its supporting documentation to consider:
 - Are there rules designed to ensure the implementation of the principles?
 - Are the rules sufficient for the implementation to be effective?
 - Are the criteria used in the rules appropriate?
 - Have the steps outlined in the Technical Manual been followed using reasonable and well documented evidence?
 - Is there sufficient detail provided, such as mapping and data?
 - Is there sufficient supporting documentation to justify the rules and criteria of the FMP?
 - Does the FMP make provisions ‘of a savings or transitional nature consequent on the replacement of the plan’ as allowed under s.43 (4)?
 - Does the FMP make allowances for changes to data, such as return frequency/severity changes in flood events or the impacts of climate change?
5. Determine to what extent the strategies in the FMP are adequate and appropriate to enable to effective implementation for each principle. **See criteria table in Attachment D.**
6. Outline how the FMP ensures the effective implementation of the principle, and if it is adequate and appropriate using the evaluation criteria. The principles they must meet the criteria for adequate to be considered appropriate.
7. For each of the principles collate the evidence to demonstrate the finding

Note:

- An example table for the assessment of provisions is included in Attachment D
- It is recommended that s.43 review is conducted simultaneously with the s.44

Step 5

Identify additional information / evidence to address the review questions. Address questions with additional data

Step 5 – Consider and review additional information and evidence collected.

Step 5 sources feedback from government agencies, subject matter experts, Indigenous groups, and the general public to further assess the issues identified in Steps 1 to 4.

1. Gather sources of evidence that have the potential to inform if the FMP is adequate and appropriate. This will involve a consultation process as outlined in Section 3.2, including but not limited to;
 - o Statutory consultation requirements under s. 43 (3)
 - o Aboriginal engagement
 - o Government stakeholders
 - o Public submission
 - o Details of a technical review into the hydraulic modelling, ecological mapping and delineation of floodway network, zoning and FMP boundary

The consultation will act as a potential source of evidence, and will identify other supporting reports and manuals, if relevant. Consultation is likely to include identifying any problems relating to the implementation of the FMP, and any gaps in roles and responsibilities. Record all consultation feedback, separately from report for confidentiality using a table such as the one **included in Attachment E** to allow any person or group that provides a submission to be notified of the report publication. Details regarding the number of submissions can be included in the report.

The prior review of the technical detail of the FMPs will act as evidence for the adequacy and appropriateness of the FMP and may inform findings and recommendations of the s.43, such as potential updates to the mapping in the FMP based on consultation or updated information sources like modelling and flood work licencing. It may also inform the review of the FMPs ability to adapt to updated knowledge, data, information and technology to ensure it remains adequate and appropriate over its lifespan.

2. List sources and submissions and their detail, including this as an attachment to the review.
3. For each of the review questions, assess the review question according to the **criteria table in Attachment D**, drawing evidence from the sources gathered.
4. For each of the general and floodplain management principles, outline if the evidence outside of the FMP that has been identified in this step shows if the FMP was adequate and appropriate in accordance with principles of the *Act*.

Note:

- An example table for the assessment of provisions is included in Attachment D
- An example of public submission is included in Attachment E

Step 6 Synthesise results

Step 6 – Synthesise results.

Step 6 involves the synthesis of earlier review steps to address the overall review question - "*Has the plans provisions remain adequate and appropriate for ensuring the effective implementation of the water management principles of the Act?*"

1. Consider the evidence in Steps 1 to 5.
2. Collate the evidence to support that the FMP was implemented in accordance with the core and additional provisions. This should be able to answer if;
 - o The FMP was implemented?
 - o The FMP was implemented to meet the principles of the *Act*?
3. Collate the evidence found regarding if the FMP is adequate and appropriate in accordance with the principles of the *Act*. Show if the reviews in these steps how found the FMP to be adequate and appropriate, the source of the evidence and its detail. If items were not found to be adequate and appropriate detail the evidence or outline the lack thereof. This assessment should consider if
 - o The provisions in the FMP were adequate and appropriate for ensuring the effective implementation of the water management principles when it was created?
 - o The provisions in the FMP are still appropriate?
4. Provide a summary of the assessment that can be reviewed quickly and easily, showing the Step 1 assessment, and those collated (Steps 2 & 3, Steps 4 & 5).
5. Wherever reasonable, identify what could change to improve the FMP into the future
6. Drawing on the assessments made, make a recommendation regarding if the FMP should;
 - a) Be extended – The FMPs provisions remain adequate and appropriate for ensuring the effective implementation of the water management principles (s.43)
 - b) Be amended – the FMPs provisions mostly remain adequate and appropriate for ensuring the effective implementation of the water management principles (s.43) but some minor amendments would make this complete. This will be most likely in scenarios where the FMP was evaluated as adequate but not appropriate, or to allow the criteria of the FMP (such as management zone delineation) to be reapplied on up-to-date information or data
 - c) Have amendments to its implementation – the FMPs provisions remain adequate and appropriate but does not ensure the effective implementation of the water management principles (s.43)
 - d) A combination of b and c
 - e) Be replaced (available for 10-year review only) – the FMPs provisions do not remain adequate and appropriate for ensuring the effective implementation of the water management principles (s.43) or if the criteria used in the FMP (such as how data is interpreted to delineate management zones) is required to be changed. The reasoning for this should be made clear, for example updates to the *Act*, data, technology, or any input have changed or improved since the creation of the FMP.
7. Finalise assessments in a report for submission to the Minister by the Department.

3.2 Consultation

Consultation will form part of the review. It will help meet the statutory requirement for consultation and ensure that the review is thorough and well informed. The consultation could take a number of forms, such as participation on Working Groups, formal and informal consultation and a request for submissions.

3.2.1 Statutory consultation requirements

The review of the FMP has a requirement for consultation under s. 43 (3). As part of the review, the organisation acting for the Minister (DPIE – Water) is required to consult with the Minister for the Environment and the Natural Resource commission (S43 (3)). This is a statutory requirement and should be an ongoing consultation over the course of the review. Engagement with the environment agency (DPIE EES) must be seen as an integral part of the statutory requirement for engagement with the Minister for the Environment.

3.2.2 Government stakeholders

As part of the review, it will be important to seek the expertise of other government agencies. The agencies and government stakeholders that should be included in this consultation should try to include but is not limited to:

- Natural Resources Access Regulator
- Department of Planning, Industry & Environment – Water
- Department of Planning, Industry & Environment – Biodiversity, Conservation and Science Directorate
- Water NSW
- The original committee members for the development of the FMP
- Local Councils/Regional Organisations of Councils
- State Emergency Service
- Transport for NSW.

The consultation with government agency stakeholders (including those required under the *Act* (s.43 (3))) should include discussion on;

- How effective was the implementation of the FMP?
- Did the FMP help (or hinder) the achievement of the principles?
- What could be considered in an update to the FMP to make it more effective?
- What are the areas that could be improved? This could include the criteria, rules, zones and any other lessons or issues identified.
- How to best define the terms adequate and appropriate in the context of s.43 of the *Act*

Consultation with Government stakeholders will also provide an opportunity to gain understanding on any legislative restrictions placed on the FMPs. For example, an FMP may include requirements for changes to be made to Government owned structures in floodplain, but the FMP is unlikely to hold the authority to delegate funds for the remediation.

3.2.3 Aboriginal engagement

Meaningful consultation with Traditional Owners and Aboriginal individuals, groups or organisations relies upon demonstrating a shared understanding of Aboriginal culture and the wants needs and aspirations of Aboriginal communities. Effective engagement of Aboriginal communities and individuals affords the opportunity for Aboriginal communities to exercise their inherent rights to advance matters of cultural significance where there has been an ongoing connection since time immemorial. Aboriginal engagement should be conducted in the most appropriate method for the group and the region. A stakeholder specific approach should be applied using a best fit approach.

Culturally appropriate consultation is an approach that conveys an understanding and respect for Aboriginal peoples and communities. Aboriginal people require that consultation should be a process that provides for real influence in decision making. Those consulting should ensure that culturally appropriate communication, mechanisms, and good meeting procedures are adhered to. A “culturally” appropriate consultation with Aboriginal communities and individuals can be recognised in a set of guiding principles to ensure effective recognition and implementation of Aboriginal initiatives.

Aboriginal values are core to floodplain management plans, and geographical and other features of Aboriginal significance form part of the principles of the Act (s5 (e)). Engagement with Aboriginal people and Consultation may include, but not limited to, the seeking of submissions from;

- Murray Lower Darling Rivers Indigenous Nations (as relevant)
- Northern Basin Aboriginal Nations (as relevant)
- Local Aboriginal Land Councils
- NSW Aboriginal Council
- Native Title Service Corp
- Native Title bodies
- Any other Traditional Owners and Aboriginal Groups as relevant

Aboriginal engagement ensures Aboriginal communities are given the opportunity to be informed, provide feedback and collaborate on FMP reviews, while ensuring long term alignment with Aboriginal values.

3.2.4 Public submissions

There should be an open request for public submissions regarding the review of the FMP. Submissions can take the form of submission form mailout, email and advertisement on the agency website. These should be collated and reviewed, forming evidence for the assessment made on the promotion of the principles in the FMP.

Public submissions are not a requirement of the s.43 review under the Act, but it is considered good practice and consistent with the s.43A reviews of water sharing FMPs.

3.3 Technical Review

While the review of the technical detail of the FMP is out of scope for this review method, it is an important role in the review. To ensure that the FMP is adequate and appropriate the detail that informed its development should undergo a review and the results used as source of evidence in the s.43 review. The detail that undergoes should include:

- The flood frequency analysis
- The design flood chosen
- The frequency of update of the floodplain detail used in modelling, such as the terrain and inclusion of licenced flood works
- The hydraulic modelling and results
- The mapping of ecological, cultural, and Aboriginal assets
- Criteria used for delineation the floodway network/zoning or relevant strategy
- Feedback from stakeholders on specific issues regarding delineation of the floodway network/zoning or relevant strategy

The technical review should be completed in the lead up to the s.43 review in the event that it has not been completed in a recent time. If it has not been completed, the reasoning for this should also be noted for potential inclusion as an evidence source in the review, such as the adaptive management requirements under the Act.

3.4 Investigation

As part of the s.43 review(s), the following documentation and data will be required or useful.

Supporting documentation and data	How it will inform the s.43 review(s)
<u>The following documents are required as a minimum for the s.43 review(s)</u>	
The Floodplain Management Plan	This is the subject of the review

The following documents and data will be useful for ensuring a complete review

Audit report	This will provide information on the of the implementation ('giving effect' s.44) of the plan
Background document(s)	This will inform the level of detail included for the areas identified in the principles
Technical manual for FMPs developed under the Act	Public document which describes the steps involved in developing an FMP.
Hydraulic Modelling results	Spatial representation of the data informing the FMP zones will help inform the adequacy of the criteria and information used.
Long-term Watering Plans	Identify water dependent floodplain environmental assets, biota and functions and their requirements for water
Implementation and technical guidance documents	Technical guidance for the implementation and assessment of FW's.
Development documentation	Any documentation the supported the creation of the FMP
Monitoring data	Any flood or environmental monitoring data that has been collected since commencement
Audit data	Any Monitoring, evaluation and reporting gathered during the s44 audit

3.5 Interdependencies

To ensure the most effective and efficient completion of the review, the interdependencies with other work should be understood and aligned as much as possible. Some of these have been included in the method, including:

- A technical review should be completed prior to the s.43 Review to inform the review as an important evidence source
- The period Audit of the FMP as required by s.44 of the Act and conducted by the NRC should be organised to be conducted simultaneously wherever possible

Other opportunities to identify and coordinate interdependencies should be investigated in the lead up to conducting the review.

4 Method updates

This method document should be reviewed regularly to ensure it remains suitable for the purpose of the s.43 review(s). The method should be reviewed and updated if any amendments are made to the *Act* to ensure that the information and sections referenced remain accurate.

Attachment A: Step 1 Table

Assessment under s.35 template - This table is a template for use in the review and has been intentionally left blank.

Logic Assessment	Assessment	Evidence
Does the FMP contain a vision statement (s.35(1)(a))	✓ or ✗	
Does the FMP contain objectives (s.35(1)(b))	✓ or ✗	
Are the objectives consistent with the vision statement (NA if objectives are not present) (s.35(1)(b))	✓ or ✗ or NA	
Are there strategies for reaching the objectives (NA if objectives are not present) (s.35(1)(c))	✓ or ✗ or NA	
Are there performance indicators to measure the success of the strategies (NA if strategies are not present) (s.35(1)(d))	✓ or ✗ or NA	
Are the performance indicators SMART goals and clear (NA if performance indicators are not present)	✓ or ✗ or NA	

Attachment B: Step 2 Tables

FMP Provisions Criteria Table					
Provision	Detail	✓	○	✗	
Core Provisions	29	The floodplain management provisions of a management plan for a water management area must deal with the following matters—			
	(a)	identification of the existing and natural flooding regimes in the area, in terms of the frequency, duration, nature and extent of flooding	FMP explicitly identifies existing and natural flooding regimes in terms of all of frequency, duration, nature and extent of flooding	FMP identifies existing and/or natural flooding regimes in terms of some but not all of frequency, duration, nature and extent of flooding	FMP does not identify any flood regimes
	(b)	the identification of the ecological benefits of flooding in the area, with particular regard to wetlands and other floodplain ecosystems and groundwater recharge	FMP explicitly identifies the ecological benefits of flooding in the area, including wetlands and other floodplain ecosystems and groundwater recharge	FMP identifies ecological benefits to some but not all of wetlands and other floodplain ecosystems and groundwater recharge	FMP does not identify any ecological benefits
	(c)	the identification of existing flood works in the area and the way they are managed, their benefits in terms of the protection they give to life and property, and their ecological impacts, including cumulative impacts	FMP explicitly identifies existing flood works in the area and the way they are managed, their benefits in terms of the protection they give to life and property, and their ecological impacts, including cumulative impacts	FMP identifies existing flood works in the area including some but not all of the way they are managed, their benefits in terms of the protection they give to life and property, and their ecological impacts, including cumulative impacts	FMP does not identify existing works
	(d)	the risk to life and property from the effects of flooding	FMP explicitly deals with risks to life and property from the effects of flooding	FMP deals with the risks to life or property but not both, OR FMP is considered to have dealt with risks to life and property but is not explicit	FMP does not deal with risks to life and property from the
Additional Provisions	30	The floodplain management provisions of a management plan for a water management area may also deal with the following matters—			
	(a)	proposals for the construction of new flood works	FMP explicitly deals with proposals for the construction of new flood works		FMP does not deal with proposals for the construction of new flood works
	(b)	the modification or removal of existing flood works	FMP explicitly deals with the modification or removal of existing flood works	FMP deals with either the modification or removal of existing flood works but not both	FMP does not deal with the modification or removal of existing flood works
	(c)(i)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in	FMP explicitly deals with the restoration or rehabilitation of land,	FMP deals with some of the restoration or rehabilitation of land,	FMP does not deal with restoration or rehabilitation of land, water sources or

FMP Provisions Criteria Table				
Provision	Detail	✓	○	✗
	particular in relation to the passage, flow and distribution of floodwater	water sources or their dependent ecosystems, in particular in relation to the passage, flow and distribution of floodwater	water sources or their dependent ecosystems, in particular in relation to the passage, flow and distribution of floodwater but not all	their dependent ecosystems, in particular in relation to the passage, flow and distribution of floodwater
(c)(ii)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to existing dominant floodways and exits from floodways	FMP explicitly deals with the restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to existing dominant floodways and exits from floodways	FMP deals with some of the restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to existing dominant floodways and exits from floodways but not all	FMP does not deal with restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to existing dominant floodways and exits from floodways
(c)(iii)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to rates of flow, floodwater levels and duration of inundation	FMP explicitly deals with the restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to rates of flow, floodwater levels and duration of inundation	FMP deals with some of the restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to rates of flow, floodwater levels and duration of inundation but not all	FMP does not deal with restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to rates of flow, floodwater levels and duration of inundation
(c)(iv)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to downstream water flows	FMP explicitly deals with the restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to downstream water flows	FMP deals with some of the restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to downstream water flows but not all	FMP does not deal with restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to downstream water flows
(c)(v)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to natural flood regimes, including spatial and temporal variability	FMP explicitly deals with the restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to natural flood regimes, including spatial and temporal variability	FMP deals with some of the restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to natural flood regimes, including spatial and temporal variability but not all	FMP does not deal with restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to natural flood regimes, including spatial and temporal variability
(d)	the control of activities that may affect or be affected by the frequency, duration, nature or extent of flooding within the water management area	FMP explicitly deals with the the control of activities that may affect or be affected by the frequency, duration, nature or extent of flooding within the water management area	FMP deals with the control of activities that may affect or be affected by some of the frequency, duration, nature or extent of flooding within the water management area but not all	FMP does not deal with

FMP Provisions Criteria Table					
Provision		Detail	✓	○	✗
	(e)	the preservation and enhancement of the quality of water in the water sources in the area during and after flooding	FMP explicitly deals with the preservation and enhancement of the quality of water in the water sources in the area during and after flooding	FMP deals with the preservation and enhancement of the quality of water in the water sources in the area either during or after flooding but not both	FMP does not deal with the preservation and enhancement of the quality of water in the water sources in the area during and after flooding
	(f)	other measures to give effect to the water management principles and the objects of the Act	FMP explicitly deals with the	FMP deals with some of the	FMP does not deal with
	(g)	such other matters as are prescribed by the regulations	FMP explicitly deals with the	FMP deals with some of the	FMP does not deal with

This table is a template for use in the review and has been intentionally left blank.

[FMP Title] Review – FMP Provisions Assessment Table							
Provision	Detail	Assessment (circle one)			Evidence	Comment	
	29	The floodplain management provisions of a management plan for a water management area must deal with the following matters—					
Core Provisions	(a)	identification of the existing and natural flooding regimes in the area, in terms of the frequency, duration, nature and extent of flooding	✓	○	✗		
	(b)	the identification of the ecological benefits of flooding in the area, with particular regard to wetlands and other floodplain ecosystems and groundwater recharge	✓	○	✗		
	(c)	the identification of existing flood works in the area and the way they are managed, their benefits in terms of the protection they give to life and property, and their ecological impacts, including cumulative impacts,	✓	○	✗		
	(d)	the risk to life and property from the effects of flooding	✓	○	✗		
	30	The floodplain management provisions of a management plan for a water management area may also deal with the following matters—					
Additional Provisions	(a)	proposals for the construction of new flood works	✓	○	✗		
	(b)	the modification or removal of existing flood works	✓	○	✗		
	(c)(i)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to	✓	○	✗		

[FMP Title] Review – FMP Provisions Assessment Table						
Provision	Detail	Assessment (circle one)			Evidence	Comment
	the passage, flow and distribution of floodwater					
(c)(ii)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to existing dominant floodways and exits from floodways	✓	○	✗		
(c)(iii)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to rates of flow, floodwater levels and duration of inundation	✓	○	✗		
(c)(iv)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to downstream water flows	✓	○	✗		
(c)(v)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to natural flood regimes, including spatial and temporal variability	✓	○	✗		
(d)	the control of activities that may affect or be affected by the frequency, duration, nature or extent of flooding within the water management area	✓	○	✗		
(e)	the preservation and enhancement of the quality of water in the water sources in the area during and after flooding	✓	○	✗		
(f)	other measures to give effect to the water management principles and the objects of this Act	✓	○	✗		
(g)	such other matters as are prescribed by the regulations	✓	○	✗		

Attachment C: Step 3 Tables

Implementation Assessment Criteria		
Assessment		Description
Implemented	✓	The Audit found that the FMP was implemented in accordance with the particular provision
Not Implemented	✗	The Audit found that the FMP was not implemented in accordance with the particular provision
Not reviewed	NA	The Audit did not review the particular provision, or the Audit was not able to draw enough evidence to make a determination in relation to the particular provision

This table is a template for use in the review and has been intentionally left blank.

[FMP Title] Review – Implementation Assessment Table							
Provision	Detail	Assessment (circle one)			Evidence	Relevant Recommendation	
Core Provisions	29	The floodplain management provisions of a management plan for a water management area must deal with the following matters-					
	(a)	identification of the existing and natural flooding regimes in the area, in terms of the frequency, duration, nature and extent of flooding	✓	✗	NA		
	(b)	the identification of the ecological benefits of flooding in the area, with particular regard to wetlands and other floodplain ecosystems and groundwater recharge	✓	✗	NA		
	(c)	the identification of existing flood works in the area and the way they are managed, their benefits in terms of the protection they give to life and property, and their ecological impacts, including cumulative impacts	✓	✗	NA		
	(d)	the risk to life and property from the effects of flooding	✓	✗	NA		

[FMP Title] Review – Implementation Assessment Table						
Provision	Detail	Assessment (circle one)			Evidence	Relevant Recommendation
Additional Provisions	30	The floodplain management provisions of a management plan for a water management area may also deal with the following matters				
	(a)	proposals for the construction of new flood works	✓	✗	NA	
	(b)	the modification or removal of existing flood works	✓	✗	NA	
	(c)(i)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to the passage, flow and distribution of floodwater	✓	✗	NA	
	(c)(ii)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to existing dominant floodways and exits from floodways	✓	✗	NA	
	(c)(iii)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to rates of flow, floodwater levels and duration of inundation	✓	✗	NA	
	(c)(iv)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to downstream water flows	✓	✗	NA	
	(c)(v)	restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to natural flood regimes, including spatial and temporal variability	✓	✗	NA	
	(d)	the control of activities that may affect or be affected by the frequency, duration, nature or	✓	✗	NA	

[FMP Title] Review – Implementation Assessment Table						
Provision	Detail	Assessment (circle one)			Evidence	Relevant Recommendation
	extent of flooding within the water management area					
(e)	the preservation and enhancement of the quality of water in the water sources in the area during and after flooding	✓	✗	NA		
(f)	other measures to give effect to the water management principles and the objects of the Act	✓	✗	NA		
(g)	such other matters as are prescribed by the regulations	✓	✗	NA		

Attachment D: Step 4 and 5 Tables

Review – Water Management Principles Assessment Criteria Table						
Section	Principle	Not included so not adequate or appropriate	Included but not adequate or appropriate	Appropriate but not adequate	Adequate but not appropriate	Adequate and Appropriate
5	is the management plan adequate an appropriate for ensuring the effective implementation of the general principles to;					
(2)(a)	Ensure the effective protection and restoration of water sources, floodplains and dependent ecosystems	Water sources, floodplains and dependant ecosystems are not covered by the FMP	The areas are included in the FMP with no mechanisms or rules articulated, and/or no specific items identified	Water resources, floodplains and ecosystems area represented in the FMP in an appropriate, with prescriptive wording and enforceable rules but the detail or criteria used may be insufficient or outdated.	Water sources, floodplain areas and flood dependant ecosystems are clearly identified in the in the FMP with a high level of detail and clear criteria but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive	Opportunities to apply updates in research or understanding or restoration of these areas has been provided. Mechanisms for the identification and the protection and restoration of areas not included in the in the FMP has been included. The detail and criteria are clear, descriptive and up to date. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language
(2)(b)	Protect habitat animals and plants that benefit from water (across the floodplain) or potentially affected by managed activities (flood work)	Habitats, animals and plants that benefit from water or are potentially affected by managed activities are not covered by the in the FMP	The areas are included in the in the FMP with no mechanisms or rules articulated, and/or no specific items identified	Habitats, animals and plants that benefit from water within the in the FMP area are represented in an appropriate, with prescriptive wording and enforceable rules but the detail or criteria used may be insufficient or outdated.	Habitats, animals and plants that benefit from water within the in the FMP area are clearly identified and there are clear rules or mechanisms included to protect them but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive	Opportunities to apply updates in research or understanding or restoration of these areas has been provided. Mechanisms for the identification and the protection areas not included in the in the FMP has been covered. The detail and criteria are clear, descriptive and up to date. The detail is written in an appropriate

Review – Water Management Principles Assessment Criteria Table						
Section	Principle	Not included so not adequate or appropriate	Included but not adequate or appropriate	Appropriate but not adequate	Adequate but not appropriate	Adequate and Appropriate
						legislative format that is consistent with the Act and uses clear prescriptive language
(2)(c)	Protect (or enhance) water quality of all sources	Water quality of water sources is not covered by the in the FMP	Water quality has been included in the in the FMP with no mechanisms or rules articulated, and/or no specific items identified	Some water sources, such as in channel flow have been identified within the in the FMP. Clear mechanisms or rules regarding their protection AND enhancement are included but the detail or criteria used may be insufficient or outdated	Some water sources, such as in channel flow have been identified within the in the FMP. Clear mechanisms or rules regarding their protection AND enhancement are included but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive	The in the FMPs water sources include all existing, such as groundwater recharge and includes clear implementation processes for the mechanisms or rules. The detail and criteria are clear, descriptive and up to date. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language
(2)(d)	Consider and minimise cumulative impacts of flood work approvals on water sources and their dependent ecosystems	Cumulative impacts off flood work approvals was not covered by the FMP	The impacts of flood work approvals has been included in the FMP with no mechanisms or rules articulated, and/or no specific items identified	There are clear mechanisms or processes to ensure cumulative impacts are considered and minimised, using clear and measurable guidelines but the detail or criteria used may be insufficient or outdated	There are clear mechanisms or processes to ensure cumulative impacts are considered and minimised, using clear and measurable guidelines but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive	The potential for cumulative impacts, how these may arise and what the impacts are shown in the FMP. The detail and criteria are clear, descriptive and up to date. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language
(2)(e)	Protect geographical and other features of Aboriginal significance	No areas or features of Aboriginal significance were covered by the FMP	Areas or features of Aboriginal significance have been included in the FMP with no mechanisms	Geographical and other features of Aboriginal significance and their protection is included within the FMP. There are	Geographical and other features of Aboriginal significance and their protection is included within the FMP. This	Geographical and other features of Aboriginal significance and their protection is included within the FMP. This

Review – Water Management Principles Assessment Criteria Table						
Section	Principle	Not included so not adequate or appropriate	Included but not adequate or appropriate	Appropriate but not adequate	Adequate but not appropriate	Adequate and Appropriate
			or rules articulated, and/or no specific items identified	clear mechanisms or processes to ensure their protection, but the detail or criteria used may be insufficient or outdated or the mechanisms for the ongoing protection may not be adequately articulated	protection is clearly included in the FMPs processes but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive or minimal or low consultation	protection is clearly included in the FMPs processes The detail and criteria are clear, descriptive and up to date. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language
(2)(f)	Protect geographical and other features of major cultural heritage or spiritual significance	No areas or features of major cultural heritage or spiritual significance were covered by the FMP	Areas or features of major cultural heritage or spiritual significance have been included in the FMP but no mechanisms or rules articulated, and/or no specific items identified	Geographical and other features and their protection is included within the FMP. There are clear mechanisms or processes to ensure their protection, but the detail or criteria used may be insufficient or outdated or the mechanisms for the ongoing protection may not be adequately articulated but the detail or criteria used may be insufficient or outdated	Geographical and other features and their protection is included within the FMP. This protection is clearly included in the FMPs processes but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive or minimal or low consultation	Consultation with relevant cultural groups and organisation was conducted. Geographical and other features and their protection is included within the FMP. This protection is clearly included in the FMPs processes and the detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language
(2)(g)	Maximise social and economic benefits to the community	Social and economic benefits to the community were not covered by the FMP	Social and economic benefits to the community have been included in the FMP but no mechanisms or rules articulated, and/or no specific items identified	A social and economic evaluation was included in the FMP's development. Opportunities to maximise the benefits to the community have been built into the FMP with mechanisms or rules to facilitate this in an appropriate legislative format	A social and economic evaluation was included in the FMP's development. Opportunities to maximise the benefits to the community have been built into the FMP with mechanisms or rules to facilitate this but is not in an appropriate format for a legislative tool or the	The FMP explores ways that effective floodplain management can be utilised to maximise community benefits. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language

Review – Water Management Principles Assessment Criteria Table						
Section	Principle	Not included so not adequate or appropriate	Included but not adequate or appropriate	Appropriate but not adequate	Adequate but not appropriate	Adequate and Appropriate
					wording may be vague or nonprescriptive	
(2)(h)	Respond to monitoring and improvements in understanding of ecological water requirements	Monitoring and improvements in understanding of ecological water requirements have not been covered by the FMP	Ecological water requirements are included in the FMP but monitoring and improvements in understanding are not considered adequate	Current understandings of ecological requirements are included. Clear requirements regarding monitoring are included. Mechanisms that identify triggers from monitoring and the relevant responses may not be included and the criteria and detail may be insufficient or outdated	Current understandings of ecological requirements are included. Clear requirements regarding monitoring are included. Mechanisms that identify triggers from monitoring and the relevant responses are included. Review, updating and opportunities for improvements in ecological requirements and the processed to allow this are included. but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive	The FMP has made allowances for unknown opportunities for improvements in understanding or monitoring results. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language
(2)(h)	Apply the principles of adaptive management	Principles of adaptive management have not been covered by the FMP	Principles of adaptive management have been included but not considered adequate	The FMP contains information and triggers for the adaptive management of the FMP but may be nonprescriptive or unclear on the areas that may be adapted or amended	There is a clear method outline for the adaptive management of the FMP, through changes to assessment data and information but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive or the FMP may lack specific triggers for the adaptive management tools to be used	The FMP allows for changes or updates resulting from updates in technology, data, climate, or floodplain structures. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language

Review – Water Management Principles Assessment Criteria Table						
Section	Principle	Not included so not adequate or appropriate	Included but not adequate or appropriate	Appropriate but not adequate	Adequate but not appropriate	Adequate and Appropriate
	and to determine is the management plan adequate an appropriate for ensuring the effective implementation of the floodplain management principles to:					
(6)(a)	Avoid or minimise land degradation from floodplain management (ie flood works)	Land degradation from floodplain management has not been covered by the FMP	Items within the FMP aimed at avoiding or minimising land degradation are not considered adequate	Land degradation is clear understood and defined within the FMP, as are the potential impacts of floodplain management. There are clear mechanisms identified for the assessment of the management activity and processes that ensure the land degradation to be minimised or avoided but the detail or criteria used may be insufficient or outdated	Land degradation is clear understood and defined within the FMP, as are the potential impacts of floodplain management. There are clear mechanisms identified for the assessment of the management activity and processes that ensure the land degradation to be minimised or avoided but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive	Mechanisms are detailed for the constant update of data and information to allow assessments to be made against the best available information. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language
(6)(b)	Avoid or minimise the impacts of flood works on other water users	The impacts of flood works on other water users has not been covered by the FMP	Items within the FMP aimed at avoiding or minimising the impacts of flood works on other water users are not considered adequate	The potential impacts of other water users are clearly identified, as are the potential impacts of floodplain management. The rules and criteria are clear and enforceable but the detail or criteria used may be insufficient or outdated	The potential impacts of other water users are clearly identified, as are the potential impacts of floodplain management. There are clear mechanisms identified for the assessment of the management activity and processes that ensure the impacts on other water users are minimised or avoided but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive	Mechanisms are detailed for the constant update of data and information to allow assessments to be made against the best available information. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language
(6)(b)	Minimise existing and future risk to human life	Existing and future risk to human life and property from occupation of	Existing or future risk has been considered but not both, or both are	The existing and future risks to human life and property are represented	The existing and future risks to human life and property are clearly	The FMP takes into consideration the future changes to risks resulting

Review – Water Management Principles Assessment Criteria Table						
Section	Principle	Not included so not adequate or appropriate	Included but not adequate or appropriate	Appropriate but not adequate	Adequate but not appropriate	Adequate and Appropriate
	and property from occupation of floodplain	floodplain has not been covered by the FMP	considered but are not adequate	in an appropriate form, using a legislative format, prescriptive wording but the detail or criteria used may be insufficient or outdated	identified and steps articulated to manage the risks but is not in an appropriate format for a legislative tool or the wording may be vague or nonprescriptive	from climate change, floodplain development and any other changing influence. The detail is written in an appropriate legislative format that is consistent with the Act and uses clear prescriptive language

This table is a template for use in the review and has been intentionally left blank.

[FMP Title] Review – Water Management Principles Assessment Table					
Section	Principle	Step 4 Assessment	Comment	Step 5 Assessment	Comment
5	is the management plan adequate an appropriate for ensuring the effective implementation of the general principles to;				
(2)(a)	Ensure the effective protection and restoration of water resources floodplains and dependent ecosystems				
(2)(b)	Protect habitat animals and plants that benefit from water (across the floodplain) or potentially affected by managed activities (flood work)				
(2)(c)	Protect (or enhance) water quality of all sources				
(2)(d)	Consider and minimise cumulative impacts of flood work approvals on water sources and their dependent ecosystems				
(2)(e)	Protect geographical and other features of Aboriginal significance				
(2)(f)	Protect geographical and other features of major cultural heritage or spiritual significance				
(2)(g)	Maximise social and economic benefits to the community				
(2)(h)	Respond to monitoring and improvements in understanding of ecological water requirements				
(2)(a)	Apply the principles of adaptive management				
	and to determine is the management plan adequate an appropriate for ensuring the effective implementation of the floodplain management principles to;				
(6)(a)	Avoid or minimise land degradation from floodplain management (ie flood works)				
(6)(b)	Avoid or minimise the impacts of flood works on other water users				
(6)(b)	Minimise existing and future risk to human life and property from occupation of floodplain				

Attachment E: Response Summary Template

This table is a template for use in the review and has been intentionally left blank. This table should be recorded separately from the report and kept confidential. Submissions with permission to publish may be released on request.

Submission Number	Issue Number	Organisation/ Individual	Interest Group	Description (copy verbatim)	Request/Feedback	Issue Relates To (yes/no)					Outcome/Comments	Permission to Publish
						Provisions	Principles	Implementation	Development	Other		