

Site Water Stewardship Framework Guidance

A guidebook to water stewardship for an agri-food processor site, irrigation district, and other operations in the ag and agri-food supply chain.

Rationale for water stewardship

Water stewardship is the use and safeguarding of fresh water that is socially equitable, environmentally sustainable, and economically beneficial.

Being a better water steward requires understanding the context for the water your site uses, and taking action based on that.

Why pursue water stewardship?

- Prepare for and manage risks to your operation
- Demonstrate sustainable resource management to your buyers
- Build beneficial relationships and trust with your local community
- Strengthen relationships with regulatory agencies
- Save money

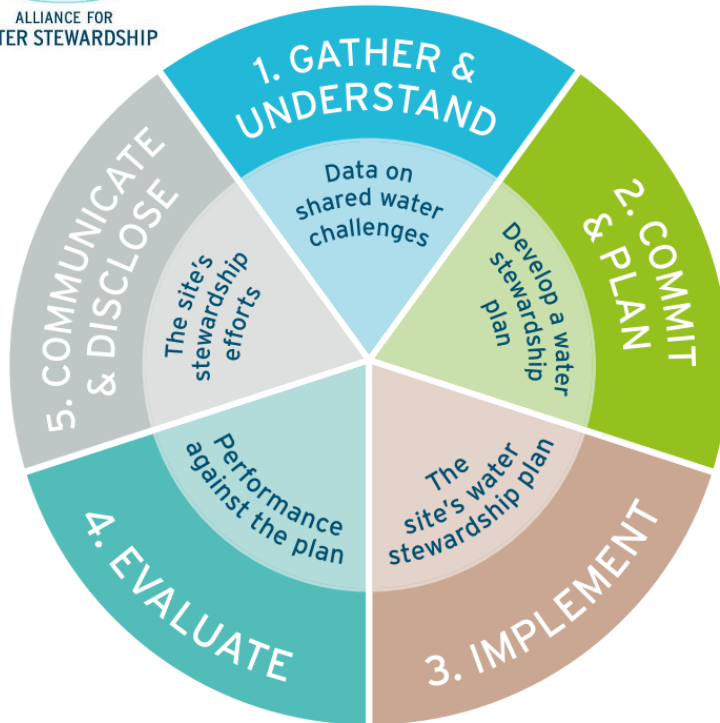
What does water stewardship entail?

Water stewardship is based on five objectives;

1. Good water governance
 2. Responsible water use
 3. Good water quality
 4. Healthy sensitive areas like wetlands (Important Water-related Areas)
 5. Safe water, sanitation and hygiene for all
- The Alliance for Water Stewardship (AWS) has worked to describe the steps to good water stewardship in detail
 - AWS has produced an internationally recognized standard of water stewardship, which includes many criteria to follow
 - You do not have to meet all the criteria to be a water steward
 - Selecting a subset of AWS criteria can still be beneficial for your operation and the watershed

A framework based on the Alliance for Water Stewardship Standard

The AWS standard framework includes 5 key steps¹, which align with ISO 14001², etc.



- GOOD WATER GOVERNANCE
- SUSTAINABLE WATER BALANCE
- GOOD WATER QUALITY STATUS
- IMPORTANT WATER-RELATED AREAS
- SAFE WATER, SANITATION AND HYGIENE FOR ALL (WASH)

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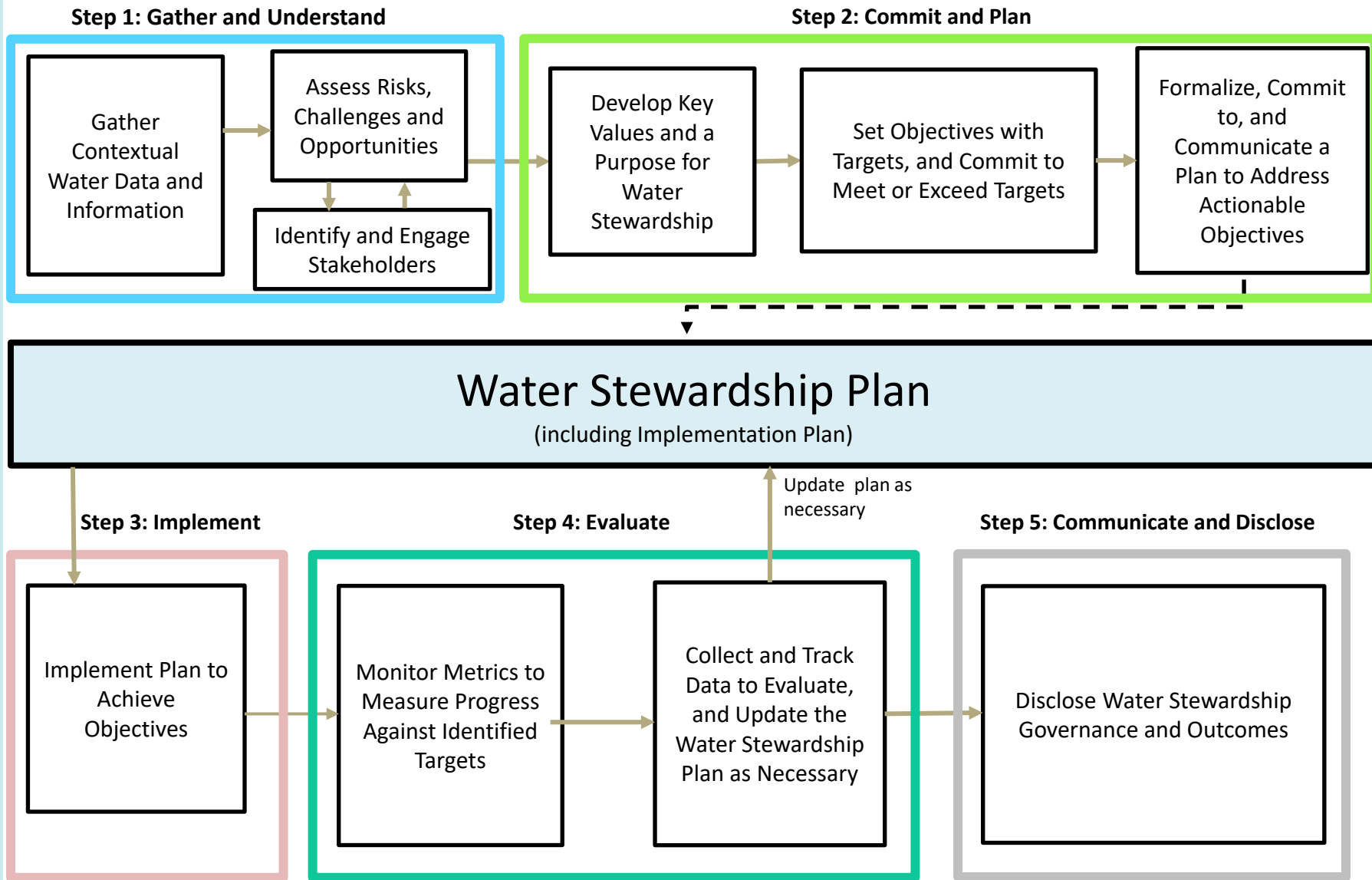


ENVIRONMENTAL
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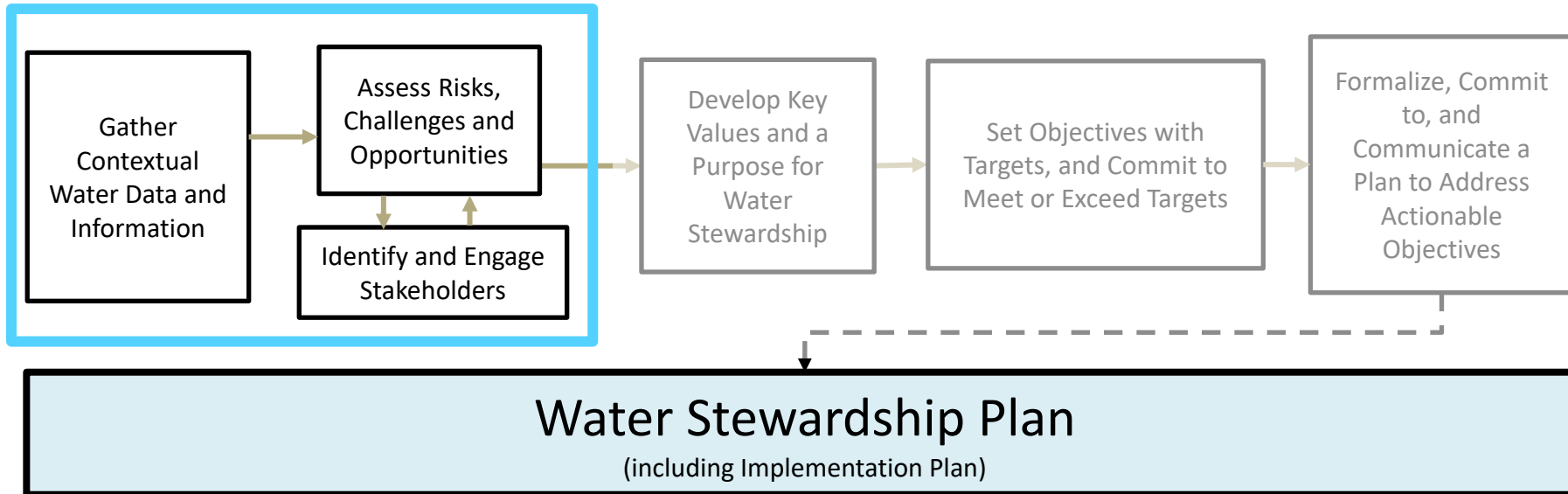


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Process Diagram for Water Stewardship



Gather and Understand



- Gather contextual water information about the site's water use and water on-site (water quality, quantity, challenges, and governance for the site)
- Understand the watershed context including geography, water quality, quantity, challenges and governance
- Identify and engage relevant stakeholders to understand their water concerns and the potential impacts and opportunities within the watershed
- Assess risks, challenges and opportunities (which can be associated with water supply, watershed health, corporate image, etc.)

Components of the water stewardship plan

- **Watershed context report**
- **Stakeholder engagement**
- **Risks and Opportunities table**

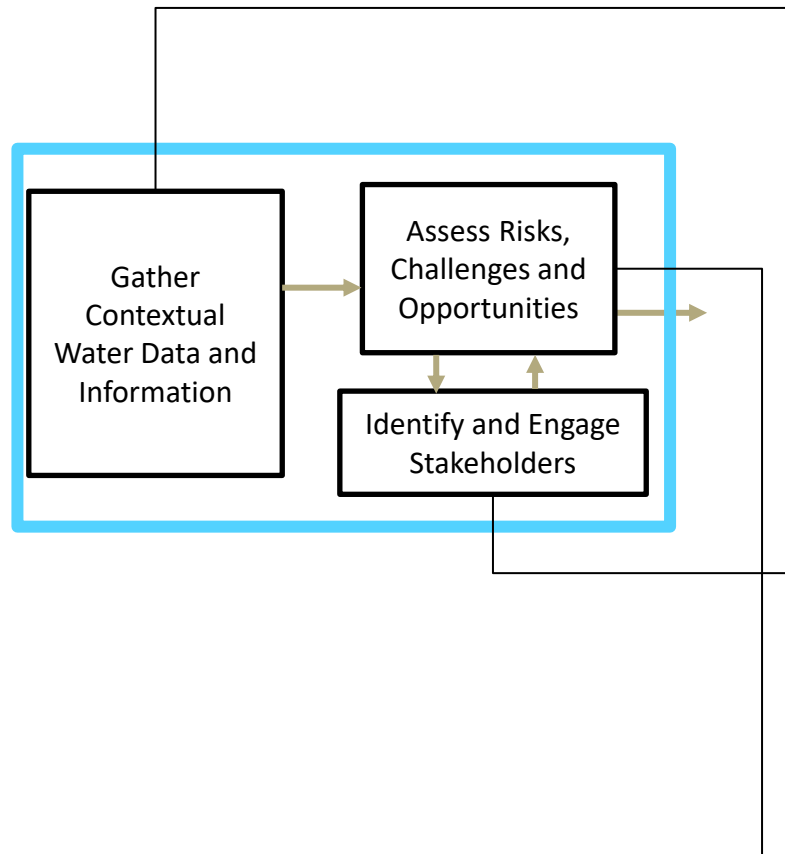
Gather and Understand

Process recommendations and learnings

Setting up realistic expectations

- Recommendations
 - Use existing maps and site plans as much as possible
 - Start with some of the stakeholders and then contact additional stakeholders after the first round, not all need to be identified and contacted all at once
 - Identifying site risks and opportunities should be an iterative process
 - Think about the site risks, opportunities and implementation actions all together, document them in a way that shows the links/connections between them
 - If not pursuing full conformance to AWS Standard, document information you have directly against the selected criteria
 - If opting to follow the AWS Standard then document information you have directly against all the AWS criteria
- Time and resourcing requirements
 - This part of the water stewardship standard process is time consuming
 - Someone needs to have ownership over the process of compiling information and becoming familiar with the AWS Standard criteria and guidelines

Gather and Understand



Gather Contextual Water Data and Information

AWS Criteria Met

1.1 (1.1.1, 1.1.2, 1.1.3, 1.1.4)

1.3 (1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.5, 1.3.6, 1.3.7, 1.3.8)

1.4 (1.4.1, 1.4.2)

1.5 (1.5.1, 1.5.2, 1.5.3, 1.5.4, 1.5.5, 1.5.6, 1.5.7)

1.8 (1.8.1, 1.8.2, 1.8.3, 1.8.4, 1.8.5)

Identify and Engage Stakeholders

AWS Criteria Met

1.2 (1.2.1)

2.1.1.3

Assess Risks, Challenges and Opportunities

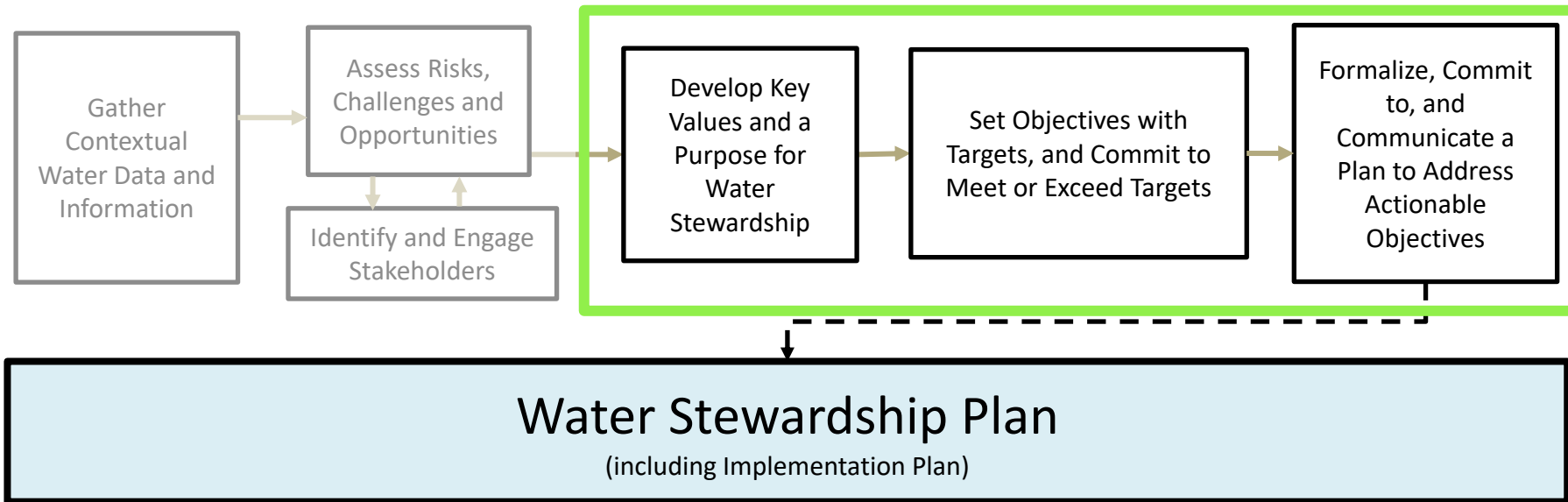
AWS Criteria Met

1.6 (1.6.1, 1.6.2)

1.7 (1.7.1, 1.7.2)

This fully covers the criteria in Step 1 of the AWS Standard.

Commit and Plan

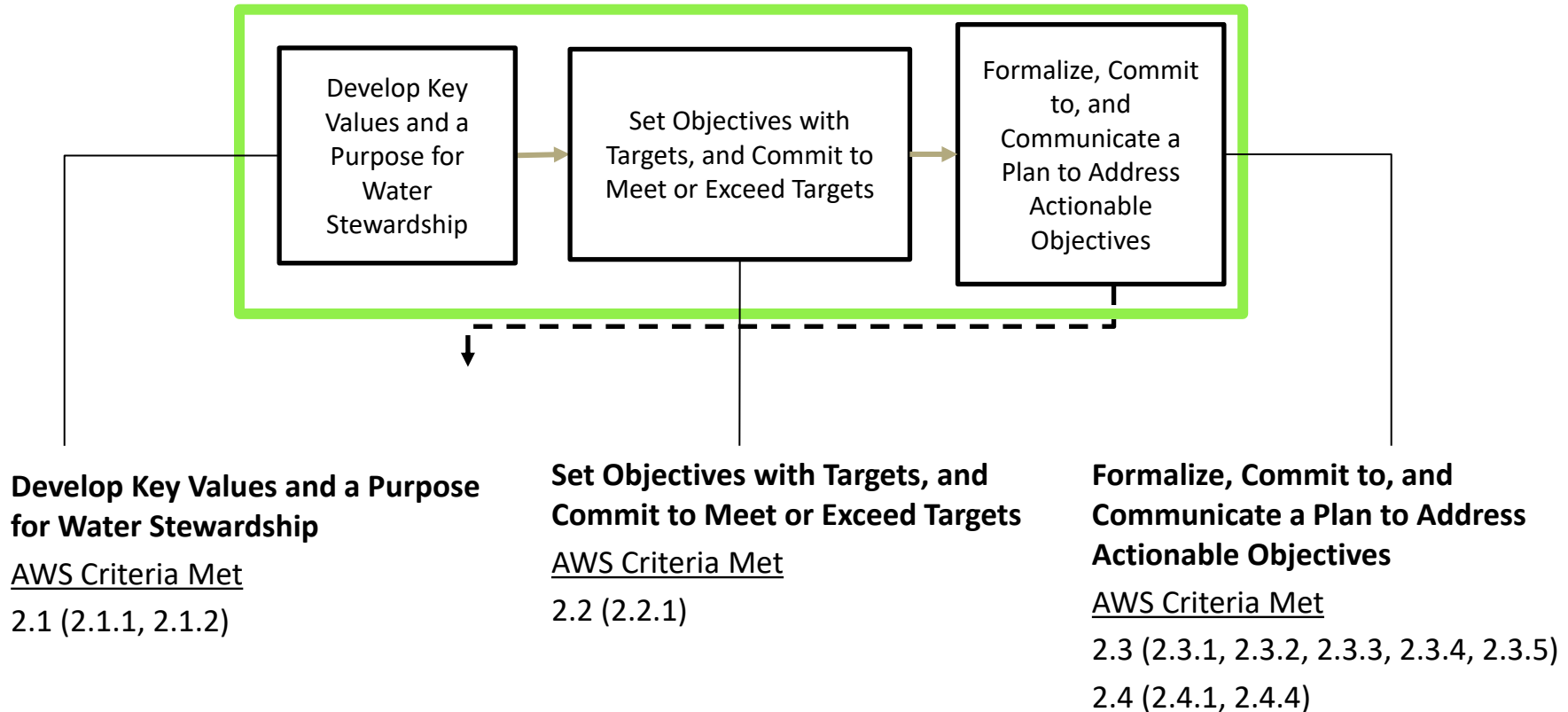


- Define and commit to water stewardship through a purpose statement – an over-arching statement on water stewardship that aligns with the company’s core values
- Define the objectives, actions and outcomes of your water stewardship plan based on the understanding of the contextual information gathered
- Develop and formalize the Water Stewardship Plan with implementation actions identified

Components of the water stewardship plan

- **One-page summary**
- **Implementation Plan**

Commit and Plan



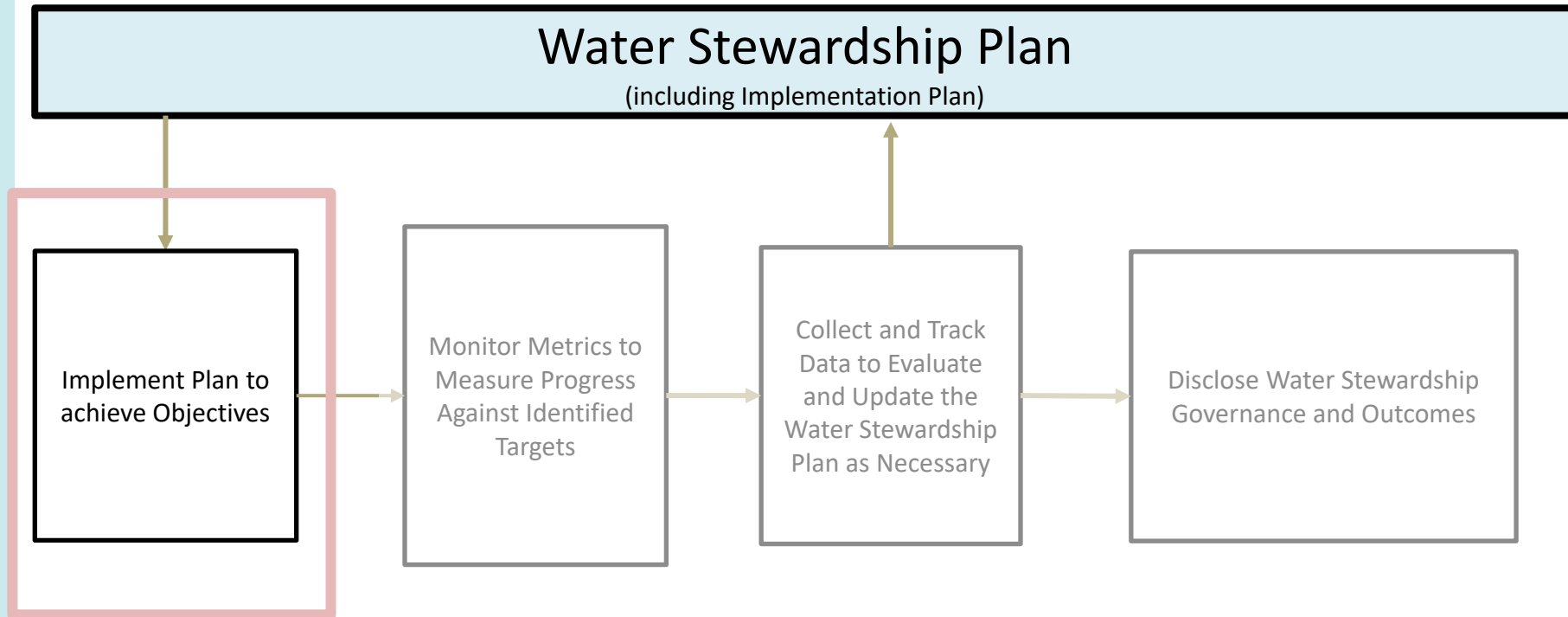
This fully covers the criteria in Step 2 of the AWS Standard.

Commit and Plan

Learnings from the project

- Recommendations
 - Projects that are already underway or in the late planning stages can be included as appropriate
 - Capture all the ideas for actions and the ones that cannot be completed in the initial implementation work can be recorded in a list of long term potential actions
- Timing
 - Some of the finalization of the plan may be done concurrently with starting on implementation actions

Implement

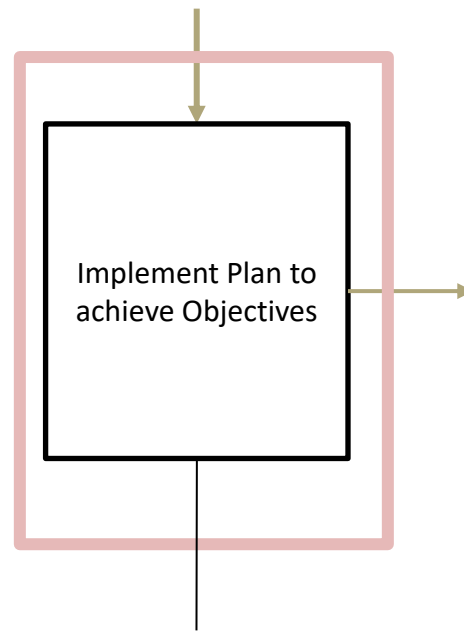


- Develop an approach to implement the actions in the Water Stewardship Implementation Plan
- Identify metrics to understand if the objectives are being met and develop systems for monitoring and measuring against the metrics and reporting on them to internal audiences (e.g. management)
- Conduct the actions

Components of the water stewardship plan

- **Implementation Plan**

Implement



Implement the water stewardship plan to achieve objectives

AWS Criteria Met

3.1 (3.1.1, 3.1.2)

3.2 (3.2.1, 3.2.2)

3.3 (3.3.1, 3.3.2, 3.3.3)

3.4 (3.4.1, 3.4.2)

3.5 (3.5.1)

3.6 (3.6.1, 3.6.2)

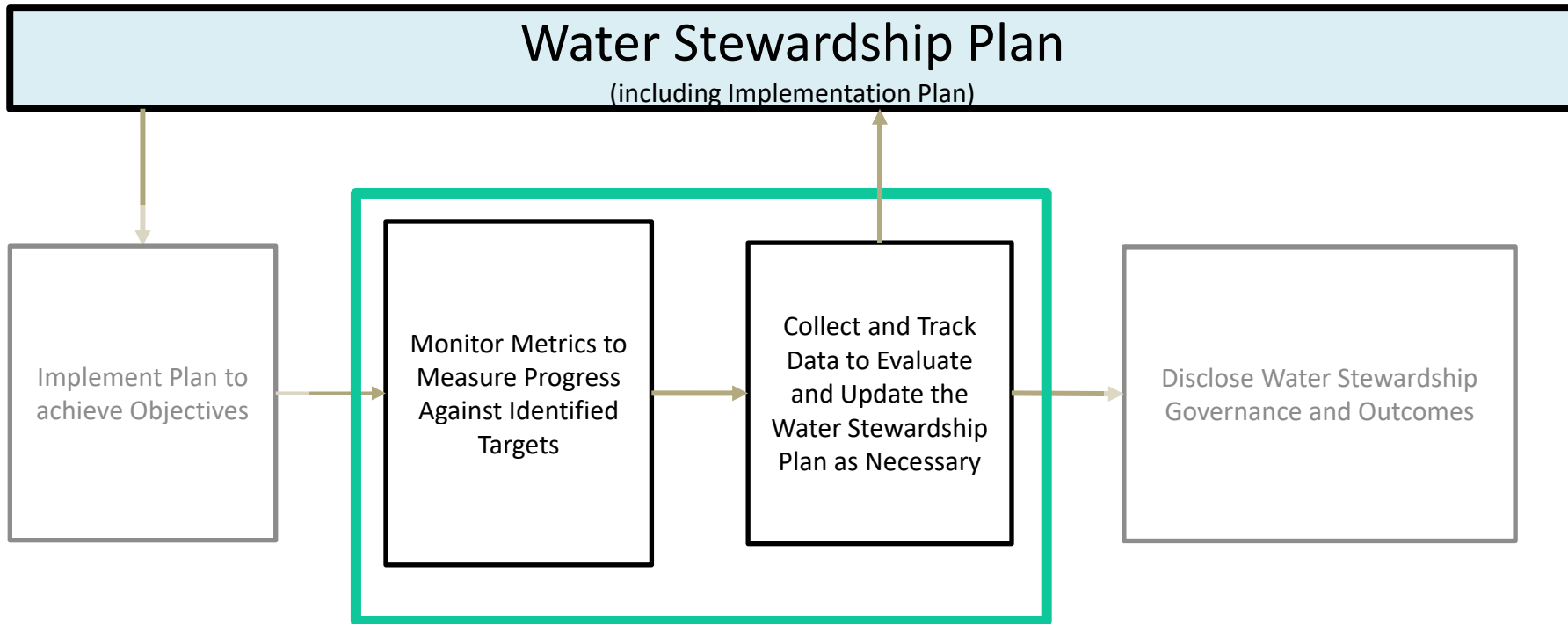
3.7 (3.7.1, 3.7.2)

3.8 (3.8.1)

3.9 (3.9.1, 3.9.2, 3.9.3, 3.9.4, 3.9.5)

This fully covers the criteria in Step 3 of the AWS Standard.

Evaluate

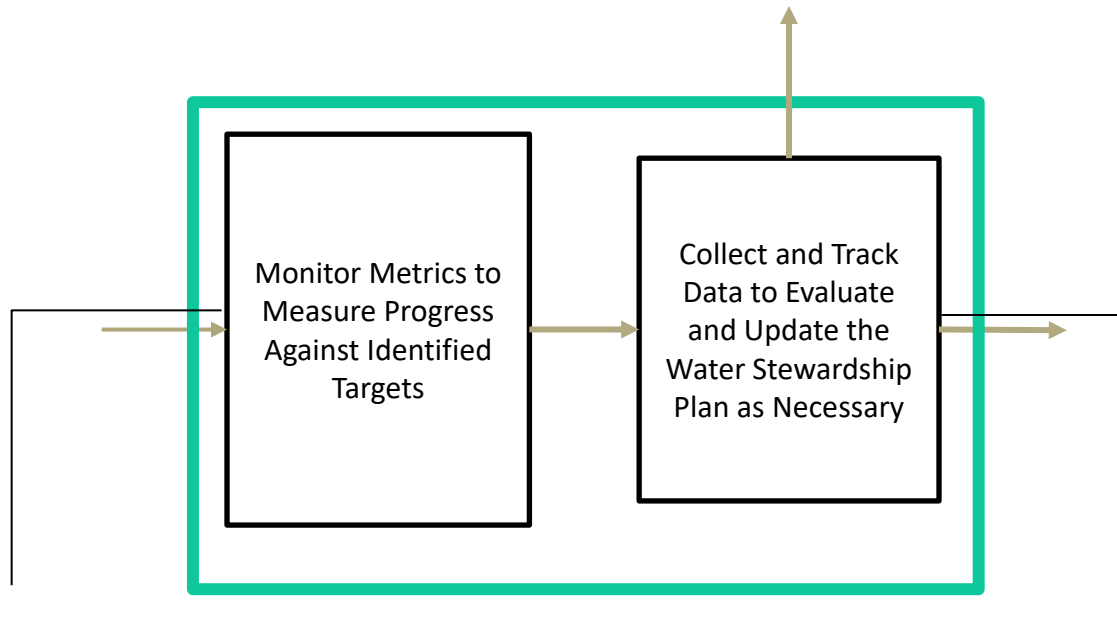


- Targets are measured using metrics
- Evaluate the progress of the water stewardship plan based on targets and metrics and update them as appropriate
- Feedback allows continuous improvement of operations

Key Documents

- **Metrics tracking document**

Evaluate



Monitor metrics to measure progress against identified targets

AWS Criteria Met

4.1 (4.1.1, 4.1.2)

4.2 (4.2.1, 4.2.2)

4.3 (4.3.1, 4.3.2, 4.3.3)

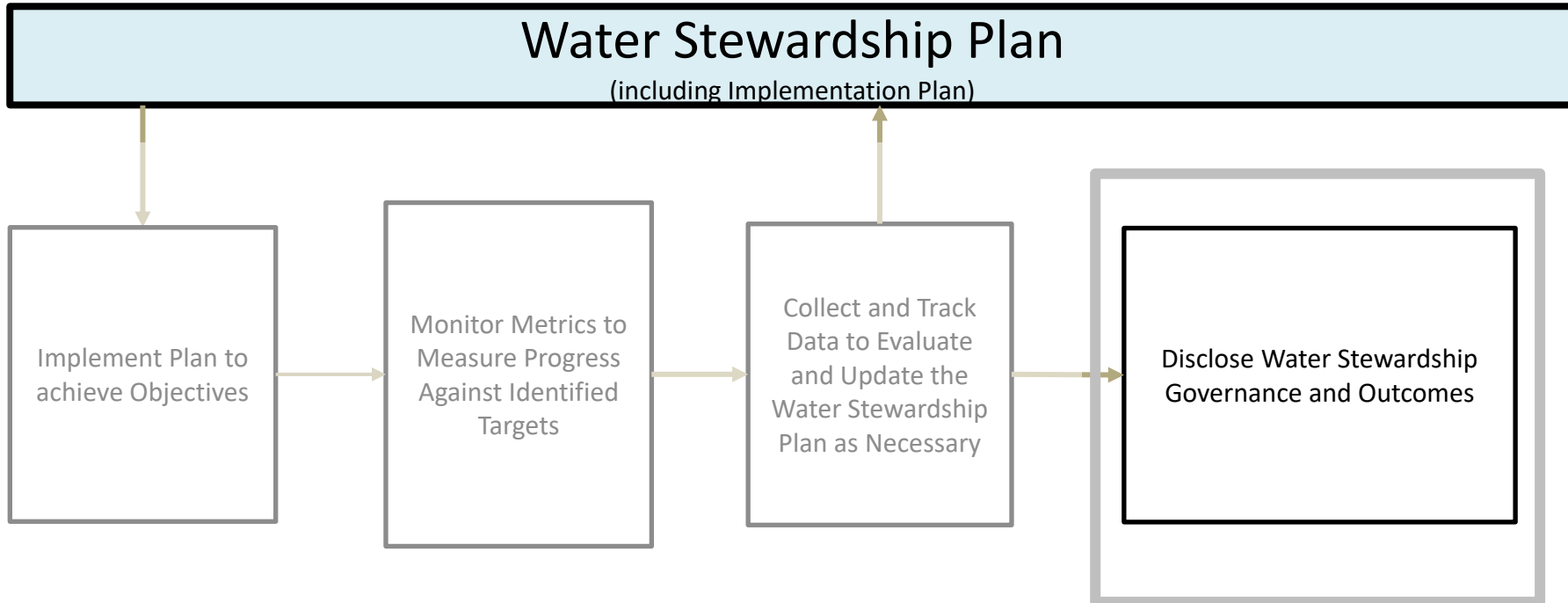
Collect and track data to evaluate and update the water stewardship plan as necessary

AWS Criteria Met

4.4 (4.4.1, 4.3.2)

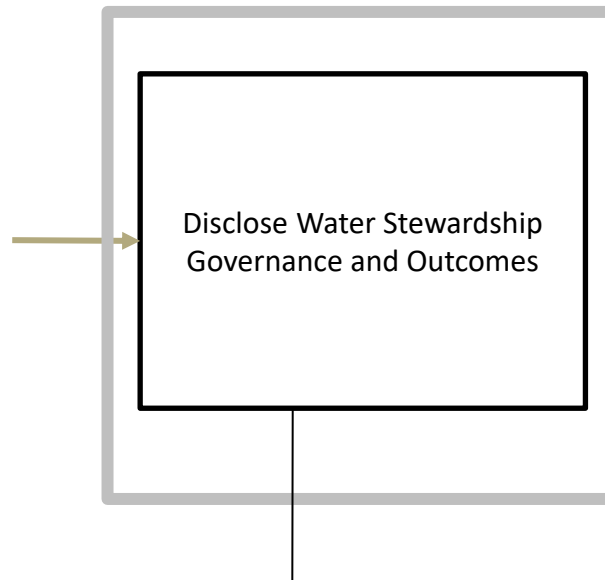
This fully covers the criteria in Step 4 of the AWS Standard.

Communicate and Disclose



- Report progress and metrics internally on a regular basis
- Communicate water stewardship progress to stakeholders and potentially more broadly
- Management decisions should include consideration of the success, or lack thereof, against targets, if updates or additional water stewardship actions are needed these should be included in planning and result in updates to the Water Stewardship Plan

Communicate and Disclose



Disclose water stewardship governance and outcomes

AWS Criteria Met

5.1 (5.1.1)

5.2 (5.2.1)

5.3 (5.3.1)

5.4 (5.4.1, 5.4.2)

5.5 (5.5.1, 5.5.2, 5.5.3)

This fully covers the criteria in Step 5 of the AWS Standard.

A closer look at the criteria in the AWS Standard

- Each criteria identified previously by a number has a description and indicators in the AWS Standard
- With the understanding of the process of water stewardship, reviewing the criteria will help you understand what will be involved
- The following pages provide a closer look at the criteria
 - On the left of each page there are high-level self-assessment questions, matched to each criteria (listed on the right of the page) for each of the five steps of water stewardship
- Read the list of questions to gauge how well your operation is already doing water stewardship

Use the following list of questions to gauge how well your operation is already doing water stewardship and what additional work will be needed to align with the criteria of the AWS Standard.

Step 1 - Gather and Understand	
Questions	AWS Criterion
	1.1
Do you have a detailed map of the site which includes water bodies, and water storage, treatment, pumping and wastewater systems?	Gather information to define the site's physical scope for water stewardship purposes, including: its operational boundaries; the water sources from which the site draws; the locations to which the site returns its discharges; and the catchment(s) that the site affect(s) and upon which it is reliant.
Do you have a map of the site within the bigger watershed with the original source of water for the site identified?	
	1.2
Do you have a list of communities, companies, and local water stewardship organizations?	Understand relevant stakeholders, their water-related challenges, and the site's ability to influence beyond its boundaries.
	1.3
Do you have one or more years of data for how much water is used on site, how much is discharged, how much storage and losses/leaks/evaporation happens?	Gather water-related data for the site, including: water balance; water quality, Important Water-Related Areas, water governance, WASH; water-related costs, revenues, and shared value creation.
Do you have emergency response plans for the site operations that relate to water and possible contamination of water?	
	1.4
Do you have a list of the primary inputs for your operation and where they are from, do you know roughly how much water is used in producing them?	Gather data on the site's indirect water use, including: its primary inputs; the water use embedded in the production of those primary inputs, the status of the waters at the origin of the inputs (where they can be identified); and water used in out-sourced water-related services.
	1.5
Do you have a state of the watershed document relevant for your catchment?	Gather water-related data for the catchment, including: water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH.
	1.6

	1.6
Have you met with stakeholders and noted their overall concerns about water?	Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site's water challenges.
	1.7
Have you assessed the risks and opportunities for the site related to water?	Understand the site's water risks and opportunities: Assess and prioritize the water risks and opportunities affecting the site based upon the status of the site, existing risk management plans and/or the issues and future risk trends
Have the risks been ranked and prioritized?	
	1.8
Do you have a detailed understanding of best practices related to water use for your industry sector?	Understand best practice towards achieving AWS outcomes: Determining sectoral best practices having a local/catchment, regional, or national relevance.
Do you have information around the best practices and standard for water use for the catchment you operate in?	

Step 2 - Commit and Plan	
Questions	AWS Criterion
	2.1
Do you have your corporate commitment to water stewardship documented in a signed statement?	Commit to water stewardship by having the senior-most manager in charge of water at the site, or if necessary, a suitable individual within the organization head office, sign and publicly disclose a commitment to water stewardship,
	2.2
Do you have a documented process for maintaining legal and regulatory compliance, with designated staff positions responsible for this?	Develop and document a process to achieve and maintain legal and regulatory compliance.
	2.3
Do you have a water stewardship strategy articulated?	Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.
Do you have a water stewardship plan with detailed actions to mitigate the risks and water challenges in the catchment, and build on opportunities identified?	
	2.4
Do you have a water stewardship plan that includes actions to respond to water risks related to the overall catchment (this might relate to major infrastructure)?	Demonstrate the site's responsiveness and resilience to respond to water risks.

Step 3 - Implement	
Questions	AWS Criterion
	3.1
Have you implemented actions described within your Water Stewardship Plan, which mitigate the risks and water challenges in the catchment?	Implement plan to participate positively in catchment governance.
Are you actively engaged with stakeholders in the catchment, such as attending catchment meetings or coordinating with relevant Government agencies?	
	3.2
Do you follow your plan for maintaining legal and regulatory compliance, as described in Criterion 2.2?	Implement system to comply with water-related legal and regulatory requirements and respect water rights.
Do you keep updated documents of this process?	
	3.3
Have you implemented actions to reduce site water use?	Implement plan to achieve site water balance targets.
Have you implemented actions to reduce site water loss/evaporation?	
Have you implemented actions to increase water reuse where possible?	
Have you established a method of monitoring and do you track the water coming and going from the site?	
	3.4
Have you identified important water quality metrics for your site?	Implement plan to achieve site water quality targets.
Based on the metrics identified, have you implemented actions to increase water quality on your site?	
Have you established a method to test site water quality?	
	3.5
Have you implemented actions to conserve or improve the health of wetlands, lakes, rivers or streams on your site?	Implement plan to maintain or improve the site's and/or catchment's Important Water-Related Areas.
Have you engaged with stakeholders in the catchment to maintain or improve the health of wetlands, lakes, rivers or streams in the local catchment?	
	3.6
Do you comply with Alberta's <i>Occupational Health and Safety Act</i> ?	Implement plan to provide access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers at all premises under the site's control.

	3.7
Have you identified a way to reduce embedded water use on site?	Implement plan to maintain or improve indirect water use within the catchment.
Have you established a method to track embedded water in production?	
Within your Water Stewardship Plan, have you implemented your actions to maintain or improve water use inbedded in production?	
	3.8
Do you engage with your neighbours to discuss any water-related concerns you have?	Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.
Do you document your discussions and concerns?	
	3.9
Do you follow best practices related to water use in your industry?	Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.
Do you follow best practices related to water use in the catchment?	
Do you document the water-related best practices that you implement?	

Step 4 - Evaluate	
Questions	AWS Criterion
	4.1
Have you identified metrics/targets related to water use on site?	Evaluate the site's performance in light of its actions and targets from its water stewardship plan and demonstrate its contribution to achieving water stewardship outcomes.
Have you identified metrics/targets related to water quality on site?	
Are your implemented actions reaching these metrics/targets?	
	4.2
Do you prepare an annual report of emergency incidents and the responses for your site?	Evaluate the impacts of water-related emergency incidents (including extreme events), if any occurred, and determine the effectiveness of corrective and preventative measures.
For water-related emergencies, have you evaluated the effectiveness and proposed improvements to response approaches and preventative measures?	
	4.3

Have you prepared a method or plan for stakeholders to provide feedback related to your water stewardship?	Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.
Have you identified relevant targets for stakeholder feedback?	
Have these targets been met?	
4.4	
Do you use your metrics, targets, and feedback to evaluate the performance of your Water Stewardship Plan?	Evaluate and update the site's water stewardship plan, incorporating the information obtained from the evaluation process in the context of continual improvement.
From this evaluation, do you update your Water Stewardship Plan and related actions to improve performance?	

Step 5 - Communicate and Disclose	
Questions	AWS Criterion
	5.1
Is information regarding site management and related staff positions on your website?	Disclose water-related internal governance of the site's management, including the positions of those accountable for legal compliance with water-related local laws and regulations.
	5.2
Do you disclose your Water Stewardship Plan to relevant stakeholders of your site?	Communicate the water stewardship plan with relevant stakeholders.
	5.3
Do you create a summary of your site's water stewardship actions and results against identified targets?	Disclose annual site water stewardship summary, including the relevant information about the site's annual water stewardship performance and results against the site's targets.
Do you publicly disclose this summary?	
Do you prepare and disclose this summary each year?	
Do you ask for stakeholder feedback on this summary?	
	5.4
Does your water stewardship summary include all documented efforts to engage with stakeholders?	Disclose efforts to collectively address shared water challenges, including: associated efforts to address the challenges; engagement with stakeholders; and co-ordination with public-sector agencies.
	5.5
Do you document your site water-related compliance violations?	Communicate transparency in water-related compliance: make any site water-related compliance violations available upon request as well as any corrective actions the site has taken to prevent future occurrences.
Do you document related corrective and preventative actions?	
Do you make these documents available?	