CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-000406

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

SITE DETAILS

Site: **Apple Mesa Data Center - Mesa**
Address: 3740 S Signal Butte Rd, 85212, Mesa, Arizona, UNITED STATES
Contact Person: Laura Meadors
AWS Reference Number: AWS-000505
Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: Certified Core
Date of certification decision: 2023-Jan-30
Validity of certificate: 2026-Jan-30

AUDIT DETAILS

Audited Service(s): AWS Standard v2.0 (2019)
Audit Type(s): Initial Audit
Audit Start Date: 2022-Nov-14
Lead Auditor: Warrick Stewart

Audit team participants:

Warrick Stewart, Lead Auditor
Kimberly Worsham, Local Auditor

Site Participants:

CERTIFICATION REPORT

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ADDITIONAL INFO

Summary of Audit Findings: A total of 15 findings were raised during the certification audit, 0 major non-conformities, 5 minor non-conformities, and 10 observations.

The Client is requested to perform a root cause analysis and define corrective actions for each of the non-conformities and to submit these to WSAS within 60 days of receipt of the audit report by 20 February 2022.

Minor non-conformities must be closed out by the time of the next annual audit.

The audit team recommends certification of the Apple Mesa Data Center at Core level pending approval of the corrective actions plan.

CLOSURE OF FINDINGS AND CORRECTIVE ACTION PLAN:

The Client has successfully submitted the corrective action plan addressing all findings.

Scope of Assessment: The scope of services covers the Initial certification audit for assessing conformity of the Apple Mesa Data Center against the AWS International Water Stewardship Standard Version 2.

The Apple Mesa Data Center is located at 3740 S Signal Butte Road, Mesa, in the greater Phoenix metropolitan area (Phoenix-Mesa-Chandler Metropolitan Statistical Area), Arizona. The site is located approximately 35 miles south-east of downtown Phoenix, U.S.A.

The facility is located in the Middle Gila catchment, sources its water from the Colorado River catchment, and ultimately (after treatment by the City of Mesa at the Greenfield Water Reclamation Plant) discharges its waste water to the East Salt River Valley Groundwater basin.

The audit was conducted onsite on 14 and 15 November 2022.

FINDINGS

NUMBER OF FINDINGS PER LEVEL	
Observation	10
Minor	5

FINDING DETAILS

Finding No:	TNR-002497
Checklist Item No:	1.3.2
Status:	Open
Finding level:	Observation
Due date:	2023-Sep-26
Checklist item:	Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped
Findings:	Currently the site has not been able to quantify losses due to Transpiration and Infiltration, and Cooling Tower Losses (due to evaporation), but the site has completed an estimation of the predicted losses from transpiration and infiltration

Finding No:	TNR-001669
Checklist Item No:	1.3.4
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2023-Oct-13
Checklist item:	Water quality of the site's water source(s), provided waters, effluent and receiving water bodies shall be quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be quantified.
Findings:	The quality of discharge/effluent from the site is not monitored. Discharge/effluent is sent to the Greenfield Water Reclamation Plant for treatment before use for agricultural irrigation and groundwater recharge, but no recent data are available for the Reclamation Plant. "Impaired water quality" was identified by the site as a water-related challenge in the catchment. However, no indication of annual, seasonal, or high and low variances have been be quantified. The site monitors water quality from the cooling towers on a weekly basis, but not all wastewater discharged from the site. All system blowdowns (e.g., from cooling towers) and effluent mix into combined discharge to the municipal waste water treatment works (48.554 million gallons). Of this, at a maximum 5% would be effluent versus process discharges. So the effluent would be highly diluted by the process water, but it would be important for the site to periodically undertake.
Corrective action:	Additional data will be documented to show that the quality of the site's effluent is adequately being monitored. A majority of the site's wastewater discharge comes from the cooling tower blowdown, which is tested by Nalco (reports were already provided) before being sent to the Greenfield Water Reclamation Plant for additional treatment before use for agricultural irrigation and groundwater recharge. Domestic sewage is not tested before being sent to the Greenfield Water Reclamation Plant for treatment, but is a minor portion of effluent (< 5%) and is combined with the cooling tower blowdown prior to discharge, so there are no plans in the near term to test the additional domestic sewage. The site will reach out to the Greenfield Water Reclamation Plant to obtain more recent data. Previously, data from August 2015-March 2019 was included in the plant's 2019 permit. Related to quantification of water quality variances, data from CAP will be better summarized to show that variance.

Evidence of implementation:	Analysis reports were provided during the audit. These reports include water quality data for cooling tower blowdown prior to discharge. Water quality results (2015-2019) for the Greenfield Water Reclamation Plant are included in the "Proposed Renewal of AZPDES Permit (AZ0025241) Coverage for the Greenfield Water Reclamation Plant" file (attached as 191003_gwrp_fs.pdf). Effluent monitoring data is available on pages 4-5 and 11-14. Apple asked the City of Mesa for water quality effluent data for the Greenfield Water Reclamation Plant. The report was provided, which includes a summary of priority pollutants and the quarterly results from GWRP's effluent for 2022. All results were within the acceptable range. The water quality of source water from CAP (monitored at the Lake Pleasant Parkway station, 2015-2022) was compiled for key parameters to show annual variances (high and low; timeseries plot). Additional data (years and parameters) can be viewed at https://aquaportal.cap-az.com/Data/Dataset.
Finding No:	TNR-001673
Checklist Item No:	1.5.1
Status:	Open
Finding level:	Observation
Checklist item:	Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.
Findings:	Beyond the various catchment plan(s) and water-related public policies, other major publicly-led and non-profit led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action, should be reflected (e.g., relevant programmes/projects by non-profit groups, including by some of the key stakeholders the site identified).
Finding No:	TNR-001674
Checklist Item No:	1.5.3
Status:	Open
Finding level:	Observation
Checklist item:	The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.
Findings:	Owing to water scarcity in the region, seasonal variance of catchment water-balance could be documented if available.

Finding No:	TNR-001675
Checklist Item No:	1.5.4
Status:	Open
Finding level:	Observation
Checklist item:	Water quality, including physical, chemical, and biological status, of the catchment shall be identified, and where possible, quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be identified.
Findings:	The 2022 Clean Water Act Assessment provides data for chemical, physical and select biological (e.g., E. coli and EPA-aquatic plants) constituents of concern, which were collected from July 1, 2012 to June 30, 2021. The report includes a comprehensive analysis of water quality data associated with Arizona's surface waters to determine whether surface water quality standards are met and designated uses are being supported. However, the site would benefit from summarizing the most relevant catchment data of relevance to its context (e.g., water quality, including physical, chemical, and biological status of Lake Havasu, etc.), and tracking changes over time to be aware of any current or emerging trends (see https://static.azdeq.gov/wqd/reports/index_trends.pdf. The site should track this data, to be aware of any water quality changes that may impact the site. In particular, water hardness is a potential Constituent of Concern to the site operation (e.g., silica and other minerals).

Finding No:	TNR-001678
Checklist Item No:	1.7.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2023-Sep-26
Checklist item:	Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact.
Findings:	The potential costs of risks materializing were not identified for all risks. The likely timeframe of the risks occurred were embedded within the Likelihood criterion, but should be separated as different criteria in the future. The business impacts were identified, but these could be documented in more detail.
Corrective action:	The site will go back into the Site Risks table and re-run the assessment taking into account feedback from the auditors. This includes setting a likely reference timeframe (e.g., 1, 10, or 50 years) for each event to occur and summarizing the potential costs (low, moderate, high) and business impact of each risk.
Evidence of implementation:	The Site provided a file which includes columns for reference timeframe, potential costs, and business impact for each event/risk. The sheet has been downloaded and reviewed.

Finding No:	TNR-001684
Checklist Item No:	2.1.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2023-Sep-26
Checklist item:	A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments: - That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes - That the site implementation will be aligned to and in support of existing catchment sustainability plans - That the site's stakeholders will be engaged in an open and transparent way - That the site will allocate resources to implement the Standard.
Findings:	The site still needs to provide evidence of how the Site Commitment is publicly disclosed, as the commitment being visible in an office, but not in a readily accessible public location (e.g., website, prominent publicly visible space in the security office at the entrance to the site).
Corrective action:	We will post our Site Commitment at our guard shack location, which is visible to the public. Our annual environmental progress report will also reference our achieved AWS certifications by site.

Finding No:	TNR-001683
Checklist Item No:	2.2.1
Status:	Open
Finding level:	Observation
Checklist item:	The system to maintain compliance obligations for water and wastewater management shall be identified, including: - Identification of responsible persons/positions within facility organizational structure - Process for submissions to regulatory agencies.
Findings:	It is recommended that the duration of each permit and the date of expiry of each permits be stated in the Water Related Compliance system, to enable effective tracking to ensure the renewal process is undertaken in a timely manner to avoid expiry. A date on which the renewal process for each permit should be initiated could also be included.

Finding No:	TNR-001810
Checklist Item No:	2.4.1
Status:	Closed
Finding level:	Minor
Due date:	2023-Sep-26
Checklist item:	A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.
Findings:	A Source Vulnerability Assessment (SVA) has been undertaken for the site that considers the local and catchment context. This was not developed in co-ordination with relevant public-sector and infrastructure agencies.
Corrective action:	The Water Stewardship Plan, which is a plan to adapt and mitigate water risks, was developed in coordination and consultation with multiple agencies and groups. This was accomplished during our Stakeholder meetings. In addition, evidence was provided in the form of emails of consultation with the City of Mesa in order to develop Apple's Conservation Plan, which was developed largely based on the City of Mesa's water shortage plan. Finally, the site's Spill Prevention, Control, and Countermeasure (SPCC) Plan was approved by the US EPA.
Evidence of implementation:	SPCC Plan Water Conservation Plan Water Conservation Plan Consultation evidence Updated WS Plan Stakeholder meeting notes and disclosure emails have already been provided.

Finding No:	TNR-001818
Checklist Item No:	3.1.1
Status:	Open
Finding level:	Observation
Checklist item:	Evidence that the site has supported good catchment governance shall be identified.
Findings:	The site should provide details of how it has supported the Good Catchment Governance

Finding No:	TNR-002498
Checklist Item No:	3.2.1
Status:	Open
Finding level:	Observation
Checklist item:	A process to verify full legal and regulatory compliance shall be implemented.
Findings:	The site should provide evidence confirming that it does not have any permitting requirements in terms of volumes or limits for specific Constituents of Concern for the effluent it discharges to the City of Mesa's Waste Water Treatment Works.

Finding No:	TNR-001820
Checklist Item No:	3.4.2
Status:	Open
Finding level:	Observation
Checklist item:	Where water quality is a shared water challenge, continual improvement to achieve best practice for the site’s effluent shall be identified and where applicable, quantified.
Findings:	Going forward, the site should quantify the proposed continual improvements to achieve best practice.

Finding No:	TNR-001822
Checklist Item No:	3.9.4
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2023-Sep-26
Checklist item:	Actions towards achieving best practice, related to targets in terms of the site’s maintenance of Important Water-Related Areas shall be implemented.
Findings:	The site needs to provide evidence of its ongoing volunteer activities with non-profit organizations in Mesa regarding catchment IWRAs.
Corrective action:	Supply evidence of our volunteer activities, if relevant to IWRAs and possible. We will also re-evaluate if what was listed is considered best practice related to IWRAs.

Finding No:	TNR-001823
Checklist Item No:	3.9.5
Status:	Open
Finding level:	Observation
Checklist item:	Actions towards achieving best practice related to targets in terms of WASH shall be implemented.
Findings:	The site needs to confirm if any of its ongoing volunteer activities with non-profit organizations in Mesa currently support provision of WASH.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

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Finding No:	TNR-001827
Checklist Item No:	4.1.3
Status:	Open
Finding level:	Observation
Checklist item:	The shared value benefits in the catchment shall be identified and where applicable, quantified.
Findings:	The shared value benefits of the Water Stewardship Plan were identified. However, the site should seek to quantify these and any other future shared value benefits if possible.

Signature WSAS

Report Details

Report	Value
Report prepared by	Warrick Stewart
Report approved by	Lurdes Guerra
Report approved on (Date)	20 December 2022

Surveillance

Proposed date for next audit
2023-Nov-13

Stakeholder Announcements

Date of publication	Location
2022-Oct-05	WSAS and AWS Website
2022-Oct-31	https://twitter.com/LimnoTech/status/1587063440920780811?s=20&t=qBNgD2RmWCwlS-fU3Inj_g

Catchment Information

Catchment Information
The facility is located in the Middle Gila catchment. The Gila River ultimately flows into the Colorado River which discharges into the Gulf of California.

The site's source water comes solely from the Colorado River catchment upstream of Lake Havasu (based on water supplied from the Central Arizona Project (CAP), which includes the Upper Colorado River catchment (HUC 14) and part of the Lower Colorado River catchment (HUC 15) and the water service provider is City of Mesa.

The site's waste water is treatment by the City of Mesa at the Greenfield Water Reclamation Plant, which then discharges its waste water to the East Salt River Valley Groundwater basin. Treated wastewater is used for agriculture and groundwater recharge in the Middle Gila catchment (HUC 15050100) and East Salt River Groundwater Basin.

SiteLocation_11Mar22.jpg

Client Description and Site Details

Client/Site Background
The Apple Mesa Data Center is located at 3740 S Signal Butte Road, Mesa, in the greater Phoenix metropolitan area (Phoenix-Mesa-Chandler Metropolitan Statistical Area), Arizona. The site is located approximately 35 miles south-east of downtown Phoenix, U.S.A.

Summary of Shared Water Challenges

Summary of Shared Water Challenges
Key Shared Water Challenges in the catchment and greater Phoenix Metropolitan area include water scarcity, drought, and impaired water quality.

0.1	**General Requirements for Single Sites, Multi-Sites and Groups**	
0.1.1	*Eligibility Criteria*	
0.1.1.1	*The site(s) occupy one catchment OR an exception has been granted.*	Yes
Comment	The site occupies one catchment. However, the facility is located in the Middle Gila catchment. The site's source water comes solely from the Colorado River catchment upstream of Lake Havasu (based on water supplied from the Central Arizona Project (CAP). The site's waste water is treatment by the City of Mesa at the Greenfield Water Reclamation Plant, which then discharges its waste water to the East Salt River Valley Groundwater basin. Treated wastewater is used for agriculture and groundwater recharge in the Middle Gila catchment (HUC 15050100) and East Salt River Groundwater Basin.	
0.1.1.2	*The scope of the proposed certification shall be under the control of a single management system.*	Yes
Comment	The site is under the control of a single management system.	
0.1.1.3	*The scope of the proposed certification shall be homogeneous with respect to primary production system, water management, product or service range, and the main market structures.*	Yes
Comment	The scope of the proposed certification is homogeneous with respect to primary production system, water management, product or service range, and the main market structures.	

1	STEP 1: GATHER AND UNDERSTAND

1.1 *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.*

1.1.1 *The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including:*
- Site boundaries;
- Water-related infrastructure, including piping network, owned or managed by the site or its parent organization;
- Any water sources providing water to the site that are owned or managed by the site or its parent organization;
- Water service provider (if applicable) and its ultimate water source;
- Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies;
- Catchment(s) that the site affect(s) and is reliant upon for water.

Yes

Comment

Assessment:
The site is located at 3740 S Signal Butte Rd, Mesa, AZ 85212 (Latitude 33.346947, Longitude -111.604056). The site is located in the Middle Gila catchment (HUC 15050100). The Gila River ultimately flows into the Colorado River which discharges into the Gulf of California.

The water source is provided by the City of Mesa via the Signal Butte Water Treatment Plant. Due to the site's location (Southern distribution zone), water is sourced solely from the Central Arizona Project (CAP). CAP delivers Colorado River water from Lake Havasu via a canal system. While these sources are technically not provided to the site's location, additional water suppliers and sources for the City of Mesa include:
- Salt River Project (SRP): Salt and Verde Rivers (provided to the City distribution zone)
- Local groundwater from aquifers beneath Mesa (East Salt River Valley Groundwater Basin of the Phoenix AMA; provided to the City and Eastern distribution zones)

The discharge at the site goes to the Greenfield Water Reclamation Plant in the City of Mesa. A portion of the reclaimed wastewater is treated and supplied to the Gila River Indian Community (GRIC) (for agricultural irrigation) in exchange for a portion of their CAP water. The rest of the wastewater is diverted to the City of Gilbert where it is eventually utilized for groundwater recharge (East Salt River Valley Groundwater Basin of the Phoenix AMA) in the Middle Gila catchment (HUC 15050100). In emergencies, wastewater can be released into the East Maricopa Floodway, which flows into the Gila River, eventually discharging into the Gulf of California.

In summary, the physical scope of the site has been mapped, considering the regulatory landscape and zone of stakeholder interests, including:
- Site boundaries;
- Water-related infrastructure, including piping network, owned or managed by the site or its parent organization;
- Any water sources providing water to the site that are owned or managed by the site or its parent organization;
- Water service provider (if applicable) and its ultimate water source;
- Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies;
- Catchment(s) that the site affect(s) and is reliant upon for water.

1.2	*Understand relevant stakeholders, their water related challenges, and the site's ability to influence beyond its boundaries.*	
1.2.1	*Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall:* *- Inclusively cover all relevant stakeholder groups including vulnerable, women, minority, and Indigenous people;* *- Consider the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies;* *- Provide evidence of stakeholder consultation on water-related interests and challenges;* *- Note that the ability and/or willingness of stakeholders to participate may vary across the relevant stakeholder groups;* *- Identify the degree of stakeholder engagement based on their level of interest and influence.*	Yes
Comment	Assessment: Stakeholders and their water-related challenges have been identified. The site sought to identify a broad spectrum of stakeholders including government, indigenous communities, civil society, and municipal entities. Apple's approach to stakeholder engagement is typically undertaken based on ongoing communications with existing stakeholders, so the AWS requirement "needs" regarding stakeholder engagement had to be addressed in addition to what they were already doing. The stakeholders are identified comprehensively, but the actual process of identifying stakeholders is not documented. Evidence of stakeholder consultation on water-related interests and challenges is clearly reflected. The degree of stakeholder engagement based on their level of interest and influence has been presented. The list of stakeholders reflects consideration of the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies across government, civil society, business (including agriculture, manufacturing etc.), indigenous peoples, and the municipal water users association. The evidence does not explicitly document the process to inclusively cover all relevant stakeholder groups including specific consideration of vulnerable, women, and minority people. However, the evidence and on-site interviews reflected that these aspects were considered in the approaches applied by the site; the process in doing has just not been documented yet.	
1.2.2	*Current and potential degree of influence between site and stakeholder shall be identified, within the catchment and considering the site's ultimate water source and ultimate receiving water body for wastewater.*	Yes
Comment	Assessment: The current degree of influence between the site and stakeholders has been identified within the catchment and considered the site's ultimate water source and ultimate receiving water body for wastewater.	
1.3	*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.*	
1.3.1	*Existing water-related incident response plans shall be identified.*	Yes

Comment

Assessment:
The Mesa data center developed a comprehensive Spill Prevention, Control, and Countermeasure Plan (SPCC) in accordance with the Clean Water Act (CWA). The plan is reviewed every five years and re-certified by a Professional Engineer.

Apple developed a Water Conservation plan specific to the Mesa Data center, informed by the City of Mesa's Water Shortage Management plan.

Standard design for the facility is for 1:100 year flood event, as opposed to 1:25 year flood event. The site is located outside of a 1:100 flood zone. The site is not located near any existing water bodies, that require particular stormwater control facilities.

The site has a Disaster Management Plan and Business Continuity Plan to address emergency type events. The site has a recovery plan which identified potential risks, with an escalation path to respond to such events, but not event specific. Apple has an entire team dedicated to incident response.

1.3.2 *Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped*

Obs.

Comment

Assessment:
The site water balance, including inflows, losses, storage, and outflows have been identified. The flow of water within the site is mapped spatially, as well as on-site storage.

The site has completed an estimation of the predicted losses from transpiration and infiltration.

1.3.3 *Site water balance, inflows, losses, storage, and outflows, including indication of annual variance in water usage rates, shall be quantified. Where there is a water-related challenge that would be a threat to good water balance for people or environment, an indication of annual high and low variances shall be quantified.*

Yes

Comment

Assessment:
Site water balance, inflows, and outflows are calculated, as well as losses and storage through transpiration and infiltration.

Annual (high and low) variances in water usage rates have been quantified, which are applicable as there is a water-related challenge that could be a threat to good water balance for people or environment.

1.3.4 *Water quality of the site's water source(s), provided waters, effluent and receiving water bodies shall be quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be quantified.*

in progress

Comment

Assessment:

Water Sources
The Colorado River, via the City of Mesa, provides water to the site. Real time and historic CAP water quality data is captured.

Effluent & Receiving Water Bodies
The quality of discharge/effluent from the site is not monitored. Discharge/effluent is sent to the Greenfield Water Reclamation Plant for treatment before use for agricultural irrigation and groundwater recharge, but no recent data are available for the Reclamation Plant.

"Impaired water quality" was identified by the site as a water-related challenge in the catchment. However, no indication of annual, seasonal, or high and low variances have been be quantified.

Finding No: TNR-001669

1.3.5	*Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.*	Yes
Comment	Assessment: An inventory of all chemical stored on site is in place, specified per building/facility within the site, and mapped. The site has also mapped other potential pollution sources. There are no IWRAs, as well as no vulnerable water bodies, on site.	
1.3.6	*On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.*	Yes
Comment	Assessment: The site does not have any on-site Important Water-Related Areas from a biodiversity or cultural heritage perspective.	
1.3.7	*Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value generated by the site shall be identified and used to inform the evaluation of the plan in 4.1.2.*	Yes
Comment	Assessment: Water-related costs, including potable water, landscaping water, wastewater and chemical treatment, have been quantified. The site does not generate any water-related revenues. Water-related value generated by the site includes: - TRUE Platinum Zero Waste certified, with over 90% of generated waste being diverted from landfill disposal.	
1.3.8	*Levels of access and adequacy of WASH at the site shall be identified.*	Yes
Comment	Assessment: The site complies with all local and state building, plumbing, and sewer codes. There is potable water, flushable toilets, and showers available for use on site. The site plan specifies the number of WASH facilities present. However, the ratio of different wash facilities for different staff and genders is not specified. The WASH facilities in the relevant parts of each building are mapped and the number specified in Site Plan. These numbers are also documented including Toilets, Sinks, Showers (ADA compliant), Urinals, Filtered water dispensers, Vending (bottled water), and Drinking water fountains. There is a call box through which truck drivers can request access to a dedicated restroom. The site has a janitorial Non-Critical Cleaning: Task and Frequency Matrix to inform the frequency of cleaning of WASH facilities, which were observed on-site as very well maintained.	
1.4	*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.*	
1.4.1	*The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.*	Yes

Comment	Assessment: The site does not have any primary inputs with embedded water use. Secondary inputs have been identified, when considering if any primary inputs from embedded water use exist. Electric power is provided by SRP from 100% renewable sources (solar) within the site's catchment. Consequently, other than residual water used in solar panel manufacturing or wind turbine manufacturing, there are no water-related inputs.	
1.4.2	*The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.*	Yes
Comment	The site has stated that it does not have any outsourced services. Assessment: The site has stated that it does not have any embedded water use from outsourced services The site has food dispensing machines, not actual food produced on site, and the quantities are small.	
1.5	*Gather water-related data for the catchment, including water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH*	
1.5.1	*Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.*	Obs.
Comment	Assessment: Various water governance initiatives, including catchment plan(s) and water-related public policies, are known and understood. Mesa's Water Shortage Management Plan informed the site's Water Conservation Plan and the site sought to ensure alignment to address minimum discharge requirements of the Water Shortage Management Plan. Other major publicly-led or non-profit led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action, should be reflected (e.g., relevant programmes/projects by non-profit groups, including by some of the key stakeholders the site identified).	
1.5.2	*Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.*	Yes
Comment	Assessment: The various legal and regulatory frameworks are known and their implications for the site are understood.	
1.5.3	*The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.*	Obs.
Comment	Assessment: The catchment water-balance has been quantified. An indication of annual variance has also been provided via a graph of historical and projected future Colorado River Basin supply and use. The monthly levels of Lake Mead (at Hoover Dam) reflect season variances, Lower Colorado Basin System Conditions, and Historic Water Supply and Lake Mead Graphs.	
1.5.4	*Water quality, including physical, chemical, and biological status, of the catchment shall be identified, and where possible, quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be identified.*	Obs.

Comment

Assessment:
The 2022 Clean Water Act Assessment provides data for chemical, physical and select biological (e.g., E. coli and EPA-aquatic plants) constituents of concern, which were collected from July 1, 2012 to June 30, 2021. The report includes a comprehensive analysis of water quality data associated with Arizona's surface waters to determine whether surface water quality standards are met and designated uses are being supported.

However, the site would benefit from summarizing the most relevant catchment data of relevance to its context (e.g., water quality, including physical, chemical, and biological status of Lake Havasu, etc.), and tracking changes over time to be aware of any current or emerging trends (see https://static.azdeq.gov/wqd/reports/index_trends.pdf. The site should track this data, to be aware of any water quality changes that may impact the site. In particular, water hardness is a potential Constituent of Concern to the site operation (e.g., silica and other minerals).

Since the City's potable WTW came into operation approximately 2 years ago, the water quality has improved substantially and is much more consistent.

1.5.5 *Important Water-Related Areas shall be identified, and where appropriate, mapped,and their status assessed including any threats to people or the natural environment, using scientific information and through stakeholder engagement.*

Yes

Comment

Assessment:
Six primary catchment IWRAs have been identified, including their current water quantity and quantity status documented. Threats to people or the natural environment have also been documented, where relevant.

1.5.6 *Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.*

Yes

Comment

Assessment:
Six key pieces of existing and planned water-related infrastructure have been identified, including their condition (where available), and each of their potential exposures to extreme events (i.e., large temperature fluctuations, drought, flooding etc.) are documented.

1.5.7 *The adequacy of available WASH services within the catchment shall be identified.*

Yes

Comment

Assessment:
The adequacy of available WASH services within the catchment has been identified, not only within the State of Arizona as a whole but also within the Navajo Nation (which spans portions of Arizona, New Mexico, and Utah within the Colorado River Basin).

1.6 *Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site's water challenges.*

1.6.1 *Shared water challenges shall be identified and prioritized from the information gathered.*

Yes

Comment

Assessment:
Shared water challenges were identified and prioritized through a workshop with site staff, desktop research, and stakeholder meetings.

1.6.2 *Initiatives to address shared water challenges shall be identified.*

Yes

Comment

Assessment:
Various initiatives were identified across the different shared-water challenges.

1.7	*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 identified in 1.6.*	
1.7.1	*Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact.*	in progress
Comment	Assessment: Various Physical, Reputational, Regulatory, and Financial Risks potentially faced by the site were identified and prioritized. The Likelihood/Probability, Severity / Impact, and Risk Level of each risk, and determination as Site or Shared risks were also assessed. The business impacts were identified, but these could be documented in more detail. The likely timeframe of the risks occurred were embedded within the likelihood criterion, but should be separated as different criteria in the future. The potential costs of risks materializing were not identified for all risks. ***Finding No: TNR-001678***	
1.7.2	*Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.*	Yes
Comment	Assessment: Water Related Opportunities for the Site and Catchment (Economic, Social, Environmental) were identified, including Linkages to Risk or Water Stewardship Outcomes, Opportunity Type (Economic, Social, Environmental), Opportunity Location (site or catchment), Priority, and Estimate of potential savings/value creation for High Priority Opportunities.	
1.8	*Understand best practice towards achieving AWS outcomes: Determining sectoral best practices having a local/catchment, regional, or national relevance.*	
1.8.1	*Relevant catchment best practice for water governance shall be identified.*	Yes
Comment	Assessment: Catchment best practice for water governance was stated by the site as multi-stakeholder participation in water-related initiatives.	
1.8.2	*Relevant sector and/or catchment best practice for water balance (either through water efficiency or less total water use) shall be identified.*	Yes
Comment	Assessment: The sector best practice for water balance was stated as the objective to replenish withdrawals, ensuring a positive impact in the basin.	
1.8.3	*Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.*	Yes
Comment	Assessment: The sector best practice for managing water quality was stated as zero liquid discharge, though this is a rare and expensive outcome. The catchment best practice for water quality was stated as ensuring that site discharge does not contribute to water quality challenges in the catchment.	
1.8.4	*Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.*	Yes

Comment	Assessment: The site did not identify any on-site IWRAs. For catchment IWRAs, its was identified that future initiatives may increase the site's involvement in catchment IWRA activity related to habitat restoration and maintenance for Spotted frog and salmon / steelhead reintroduction. The catchment best practice for these IWRAs is to restore the habitat to favorable conditions and protect and maintain them once established.	
1.8.5	*Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.*	Yes
Comment	Assessment: Sector/catchment best practice for site provision of WASH was stated as being provided in the local building code, with which the site is compliant. The site also identified that globally there is strong guidance from UN-Water on provision of WASH. Additionally, it is the site's ambition to include WASH services as part of their basin engagement strategy in their water replenishment work.	

2	**STEP 2: COMMIT & PLAN - Commit to be a responsible water steward and develop a Water Stewardship Plan**
2.1	*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, the implementation of the AWS Standard and achieving its five outcomes, and the allocation of required resources.*
2.1.1	*A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments:* *- That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes* *- That the site implementation will be aligned to and in support of existing catchment sustainability plans* *- That the site's stakeholders will be engaged in an open and transparent way* *- That the site will allocate resources to implement the Standard.* in progress
Comment	Assessment The publicly available Site Commitment specifies that: - The site will implement and disclose progress on water stewardship to achieve A4WS water stewardship outcomes. - The site will ensure that its efforts are aligned with and in support of existing catchment water plans and initiatives. - The site will engage openly and transparently with water-related stakeholders. - The site will allocate resources as necessary to support this commitment. The site still needs to provide evidence of how the Site Commitment is publicly disclosed, they reflect the commitment being visible in an office, but not in a readily accessible public location (e.g., website, prominent publicly visible space in the security office at the entrance to the site). The Site Commitment could potentially be disclosed in the Annual Environmental Progress Report, which is typically published in April each year. ***Finding No: TNR-001684***
2.2	*Develop and document a process to achieve and maintain legal and regulatory compliance.*
2.2.1	*The system to maintain compliance obligations for water and wastewater management shall be identified, including:* *- Identification of responsible persons/positions within facility organizational structure* *- Process for submissions to regulatory agencies.* Obs.
Comment	Assessment: The site has a Water Related Compliance system to maintain compliance obligations for water and wastewater management, including: - The identification of responsible persons/positions within the facility's organizational structure - The process for submissions to regulatory agencies. The site also has a compliance calendar that is used to track regulatory requirements and ensure the site is actioning any actions/responses to maintain compliance.
2.3	*Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.*
2.3.1	*A water stewardship strategy shall be identified that defines the overarching mission, vision, and goals of the organization towards good water stewardship in line with this AWS Standard.* Yes

Comment	Assessment: The stated aim of the Water Stewardship Strategy for Apple's Mesa Data Center is to ensure availability, quality, and equity of water resources among people and ecosystems. Apple also aims to continually improve in the five A4WS outcomes of good water stewardship: sustainable water balance, good water quality status, good water governance, healthy status of Important Water-Related Areas, and safe water, sanitation and hygiene for all. The strategy for Apple's Mesa Data Center is to fulfil this mission by implementing a water stewardship system that includes: • Low water design • Efficiency • Watershed level engagement • Replenishment • Leadership and advocacy.	
2.3.2	*A water stewardship plan shall be identified, including for each target:* *- How it will be measured and monitored* *- Actions to achieve and maintain (or exceed) it* *- Planned timeframes to achieve it* *- Financial budgets allocated for actions* *- Positions of persons responsible for actions and achieving targets* *- Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes.*	Yes
Comment	Assessment: The Water Stewardship Plan has been informed by a sound understanding of the site and catchment in terms of the context, risks, and opportunities. Actions have been identified to achieve and maintain (or exceed) the objectives set. Actions have been linked to AWS outcome/s. Short and long-term targets have been set for each action, with as many of the targets specified quantitatively but otherwise qualitatively or descriptively. Timelines are specified for each action. Responsible person/s per action are specified. Cost/resource have been specified where the activity is sufficiently planned out to determine this. The links between each action and the achievement of best practice to help address shared water challenges and the AWS outcomes are specified for relevant actions.	
2.4	*Demonstrate the site's responsiveness and resilience to respond to water risks*	
2.4.1	*A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.*	No

Comment

Assessment:
A Water Conservation Plan specific to the site includes conservation plan provisions (e.g., Meter Installation Requirements, Water Efficiency for New Development etc.) and preparation of Water Shortage Management Plan if/when necessary. The City of Mesa was consulted during the development of the site's Water Conservation Plan. The plan includes actions should there be a risk of water supply to the site being reduced to a level that is unable to support existing demands. The plan includes phased trigger responses, with specific associated actions, for each risk level of reduced supply. The Water Shortage Management Plan 2019 addresses the only identified major water risk to the site, namely water availability reductions, interruptions, or disruptions.

The site has a comprehensive Spill Prevention, Control, and Countermeasure Plan (SPCC) in accordance with the Clean Water Act (CWA). The plan is reviewed every five years and re-certified by a Professional Engineer. The SPCC addresses Handling Procedures for potential sources of pollution; Discharge Prevention Measures; and Countermeasures for Discharge Discovery, Response, and Cleanup; amongst other aspects. The site advised that this may have been developed in co-ordination with state agencies, but evidence of this wasn't provided. This is submitted to the regulatory agency, who advise the site if any amendments or additions are required.

A Source Vulnerability Assessment (SVA) has been undertaken for the site that considers the local and catchment context. This was not developed in co-ordination with relevant public-sector and infrastructure agencies

Risks of flooding of site, particularly due to the predicted impacts of climate change (i.e., more frequent and severe weather events), were not addressed in any of the above plans to mitigate or adapt to identified water risks, however this was covered in hazard assessment in the BCP and was not identified as a potentially moderate, high or catastrophic risk or having a moderate or high likelihood of probability. A FEMA flood hazard assessment also reflects low risk to the site.

Finding No: TNR-001810

3	**STEP 3: IMPLEMENT - Implement the site's stewardship plan and improve impacts**	
3.1	*Implement plan to participate positively in catchment governance.*	
3.1.1	*Evidence that the site has supported good catchment governance shall be identified.*	Obs.
Comment	Assessment: The site is supporting good catchment governance by: - Analyzing the policies, processes, and discussions related to the Colorado basin to identify through what vehicle Apple will participate;	
3.1.2	*Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.*	Yes
Comment	Assessment: There are no non-regulatory water rights to consider.	
3.2	*Implement system to comply with water-related legal and regulatory requirements and respect water rights.*	
3.2.1	*A process to verify full legal and regulatory compliance shall be implemented.*	Obs.
Comment	Assessment: The site's Water Related Compliance schedule includes details of the Compliance Obligation/s, Person Responsible (Name & Title), Process for Complying/Submission to Regulatory Agencies, Date Last Submitted, Any Recent Non-Compliance Warnings or Events, and Notes. The site should provide evidence confirming that it does not have any permitting requirements in terms of volumes or limits for specific Constituents of Concern for the effluent it discharges to the City of Mesa's Waste Water Treatment Works.	
3.2.2	*Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including Indigenous peoples, shall be implemented.*	Yes
Comment	Water rights are not part of the site's legal and regulatory requirements, as water is supplied by the City of Mesa. Assessment: Water rights are not part of the site's legal and regulatory requirements, as water is supplied by the City of Mesa.	
3.3	*Implement plan to achieve site water balance targets.*	
3.3.1	*Status of progress towards meeting water balance targets set in the water stewardship plan shall be identified.*	Yes

Comment

Assessment:
The site identified 3 primary actions regarding water balance targets in its Water Stewardship Plan, namely:
- Improving metering to better understand water use;
- Reducing freshwater withdrawals by increasing cycles of concentration (CoC) at cooling towers;
- Maintain good water quality for site occupants; and

To date the following progress has been made in relation to these actions and their targets, as reflected in the "Current Performance Status and Benefit (volumetric, cost, or other)" column of the Water Stewardship Plan

Reducing freshwater withdrawals by increasing cycles of concentration (CoC) at cooling towers

The site is at an early stage of implementation of its Water Stewardship Plan, but progress is appropriately reflected in relation to the actions, targets, and timelines specified by the site.

3.3.2 *Where water scarcity is a shared water challenge, annual targets to improve the site's water use efficiency, or if practical and applicable, reduce volumetric total use shall be implemented.* Yes

Comment

Assessment:
The following actions have been taken to improve the site's water use efficiency, or if practical and applicable, reduce volumetric total use:

Improvement of metering to better understand water use

Current progress is all in support of this indicator, although explicit quantitative targets have not been set yet for water use efficiency and/or reduction of volumetric total use. However, this will be practically possible once improved metering has been installed, which will enable a better understanding of water use.

3.3.3 *Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.* Yes

Comment

Assessment:
The site does not re-allocate water directly, so this indicator is not relevant for the site.

3.4 *Implement plan to achieve site water quality targets*

3.4.1 *Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.* Yes

Comment

Assessment:
The site is supporting good water quality status by:

Maintaining good water quality for site occupants
Maintaining good water quality by minimizing the use of chemicals while controlling the bacteria within the water

3.4.2 *Where water quality is a shared water challenge, continual improvement to achieve best practice for the site's effluent shall be identified and where applicable, quantified.* Obs.

Comment	Assessment: The site has advised that sector best practice for managing water quality is zero liquid discharge, which is an uncommon and expensive outcome to achieve. The site deems catchment best practice for water quality to ensure that site discharge does not contribute to water quality challenges in the catchment. The site discharges effluent to the Greenfield Water Reclamation Plant, but the quality of this water is not monitored. The site produces bi-weekly water testing reports, but not for its effluent. Relevant actions from the Water Stewardship Plan include: Maintaining good water quality for site occupants Maintaining good water quality by minimizing the use of chemicals while controlling the bacteria within the water Going forward, the site should quantify the proposed continual improvements to achieve best practice.	
3.5	*Implement plan to maintain or improve the site's and/or catchment's Important Water-Related Areas.*	
3.5.1	*Practices set in the water stewardship plan to maintain and/or enhance the site's Important Water-Related Areas shall be implemented.*	Yes
Comment	Assessment: There are no on-site IWRAs, so targets are focused solely on IWRAs in the catchment.	
3.6	*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.*	
3.6.1	*Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.*	Yes
Comment	Assessment: WASH on site is deemed adequate by Apple , which was confirmed during the on-site audit. The site has advised that it complies with all local and state building, plumbing, and sewer codes. Potable water, flushable toilets, and showers are available for use on site. A map of the WASH facilities on site has been provided, including a quantitative list of all facilities.	
3.6.2	*Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that traditional access rights for indigenous and local communities are being respected, and that remedial actions are in place where this is not the case, and that these are effective.*	Yes
Comment	Assessment: The site does not have direct withdrawal from source water bodies and does not discharge directly to water bodies, and thus is not impinging on the human right to safe water and sanitation of communities. The State of Arizona overall has high WASH service access, with the AZDEQ is working closely with Arizona counties to administer the provisions of the Safe Drinking Water Act and Arizona's drinking water rules (AZDEQ, 2021).	
3.7	*Implement plan to maintain or improve indirect water use within the catchment:*	

3.7.1	*Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified.*	Yes
Comment	Assessment: The site did not identify any indirect water uses (Indicators 1.4.1-1.4.2) and consequently no indirect water use targets were included in the water stewardship plan: - The site does not have any primary inputs with embedded water use. Electric power is provided by SRP from 100% renewable sources (solar) within the site's catchment. Other than residual water used in solar panel manufacturing or wind turbine manufacturing, there are no water-related inputs.	
3.7.2	*Evidence of engagement with suppliers and service providers, as well as, when applicable, actions they have taken in the catchment as a result of the site's engagement related to indirect water use, shall be identified.*	Yes
Comment	Assessment: The site did not identify any indirect water use/s (Indicators 1.4.1-1.4.2). Therefore, indirect water use targets were not included in the water stewardship plan. Apple does engage with its suppliers globally, but those engagements do not directly relate to this site.	
3.8	*Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.*	
3.8.1	*Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.*	Yes
Comment	Assessment: The following owners of shared water-related infrastructure in the catchment were included in stakeholder outreach, which included discussion of water related challenges and risks.	
3.9	*Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.*	
3.9.1	*Actions towards achieving best practice, related to water governance, as applicable, shall be implemented.*	Yes
Comment	Assessment: The site deems catchment best practice for water governance in its context to be multi-stakeholder participation in water-related initiatives. Actions undertaken to date towards achieving best practice related to water governance include: - Development of site water stewardship plan and the A4WS process in consultation with key stakeholders (Indicator 1.2.1);	
3.9.2	*Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.*	Yes

Comment	Assessment: The site determined sector best practice for water balance to be achievement of replenish of 100% of withdrawals (i.e., net non-consumption), ensuring a positive impact in the basin. Actions taken by the site towards achieving best practice related to water balance include: - Currently vetting of vendors and working with procurement to improve metering, which will provide a better understanding of water use to be balanced; - Various actions to reduce freshwater withdrawals, including: This is expected to reduce freshwater use, avoid bacterial growth, and reduce the number of water quality-related disruptions.	
3.9.3	*Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.*	Yes
Comment	Assessment: Actions taken towards achieving best practice related to water quality include: - To maintain good water quality within the site. This is expected to reduce freshwater use and avoid bacterial growth that will positively impact on effluent discharge quality.	
3.9.4	*Actions towards achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas shall be implemented.*	in progress
Comment	Assessment: The site does not currently identify any onsite IWRAs. Future initiatives may increase the site's involvement in catchment IWRA activity, related to habitat restoration. The catchment best practice for these IWRAs is to restore the habitat to favorable conditions and protect and maintain them once established. Actions taken towards achieving best practice related to IWRAs include: - Ongoing volunteer activities with non-profit organizations in Mesa. The site needs to provide evidence of its ongoing volunteer activities with non-profit organizations in Mesa regarding catchment IWRAs, as reflected in its Water Stewardship Plan. ***Finding No: TNR-001822***	
3.9.5	*Actions towards achieving best practice related to targets in terms of WASH shall be implemented.*	Obs.
Comment	Assessment: The sector/catchment best practice for site provision of WASH is provided in local building code, with which the site is compliant.	

4	STEP 4: EVALUATE - Evaluate the site's performance.	
4.1	*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.*	
4.1.1	*Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated.*	Yes
Comment	Assessment: The site has summarized its performance against objectives as follows: This information has been removed as is considered confidential to the site. It is noted that the plan is in its early stages of implementation (within year 1). Thus, a fuller evaluation is expected in future years.	
4.1.2	*Value creation resulting from the water stewardship plan shall be evaluated.*	Yes
Comment	Assessment: The value created by each action is stated as reflected in Column J (Current Performance Status and Benefit (volumetric, cost, or other)) in the Water Stewardship Plan. Column J reflects Current Performance Status, with Benefits/Value Creation reflected in Column L. Column H also documents the costs and resources invested or planned for investment towards achieving this target.	
4.1.3	*The shared value benefits in the catchment shall be identified and where applicable, quantified.*	Obs.
Comment	Assessment: The shared value benefits of the Water Stewardship Plan were identified as : Reducing freshwater withdrawals by increasing cycles of concentration (CoC) at cooling towers - Shared value: Reduced withdrawals allow for more water to be available for other uses in the catchment. Maintaining good water quality by minimizing the use of chemicals while controlling the bacteria within the water - Shared value: Good water quality benefits the City of Mesa's Greenfield Water Reclamation Plant and downstream users (e.g., GRIC). Analyzing the policies, processes, and discussions related to the Colorado basin to identify through what vehicle Apple will participate. - Shared value: Replenish projects are expected to provide ecological benefits to others in the watershed, with specific benefits depending on specific projects. Supporting increased access to WASH in historically marginalized communities - Shared value: Support WASH access to those in need. Expanding charitable support for organizations protecting water - Shared value: Benefits will vary depending on organizations supported and number of employees involved. This has been quantified for the catchment now too, where practically possible.	

4.2	*Evaluate the impacts of water-related emergency incidents (including extreme events), if any occurred, and determine the effectiveness of corrective and preventative measures.*	
4.2.1	*A written annual review and (where appropriate) root-cause analysis of the year's emergency incident(s) shall be prepared and the site's response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future incidents shall be identified.*	Yes
Comment	Assessment: There have been no water related emergency incidents over the past year.	
4.3	*Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.*	
4.3.1	*Consultation efforts with stakeholders on the site's water stewardship performance shall be identified.*	Yes
Comment	Assessment: Disclosure emails were sent to stakeholders that were engaged as part of the site's AWS process. These emails include a description of the site's water stewardship objectives and progress/performance. The site intends to establish a mechanism to share a summary of its water stewardship performance annually.	
4.4	*Evaluate and update the site's water stewardship plan, incorporating the information obtained from the evaluation process in the context of continual improvement.*	
4.4.1	*The site's water stewardship plan shall be modified and adapted to incorporate any relevant information and lessons learned from the evaluations in this step and these changes shall be identified.*	Yes
Comment	Assessment: Because the plan is in its early stages of implementation (within year 1, having been finalized in September 2022), there is currently no need for plan updates yet, but it will be updated annually, or quarterly if necessary. Quarterly check-ins are planned, but with updates on an annual basis.	

5	STEP 5: COMMUNICATE & DISCLOSE - Communicate about water stewardship and disclose the site's stewardship efforts	
5.1	*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.*	
5.1.1	*The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.*	Yes
Comment	Assessment: Disclosure emails were sent to those stakeholders that were engaged as part of the AWS process. These emails include a description of the site's water-related internal governance.	
5.2	*Communicate the water stewardship plan with relevant stakeholders.*	
5.2.1	*The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.*	Yes
Comment	Assessment: Disclosure emails were sent to those stakeholders that were engaged as part of the site's AWS process. These emails included a description of the five AWS outcomes and the site's water stewardship objectives and progress/performance. The site has advised that it will establish a mechanism to share a summary of its water stewardship performance annually.	
5.3	*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.*	
5.3.1	*A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.*	Yes
Comment	Assessment: Disclosure emails were sent to those stakeholders that were engaged as part of the AWS process. These emails included a description of the site's water stewardship objectives and progress/performance to date. The site has advised that it will establish a mechanism to share a summary of its water stewardship performance annually.	
5.4	*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.*	
5.4.1	*The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.*	Yes
Comment	Assessment: Disclosure emails were sent to those stakeholders that were engaged as part of the AWS process. These emails included a description of the site's shared water challenges, water stewardship objectives, and progress/performance.	
5.4.2	*Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.*	Yes
Comment	Assessment: Disclosure emails were sent to those stakeholders that were engaged as part of the AWS process, to facilitate engagement and coordinate and support to public-sector agencies. The site also held two workshops with stakeholders to identify shared water challenges and potential responses, and facilitate co-ordination with public-sector agencies.	

5.5	*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.*	
5.5.1	*Any site water-related compliance violations and associated corrections shall be disclosed.*	Yes
Comment	Assessment: The site did not had any water-related compliance violations in the past year, so there was nothing to disclose.	
5.5.2	*Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.*	Yes
Comment	Assessment: The site has not had any water-related compliance violations in the past year, so no corrective actions were necessary.	
5.5.3	*Any site water-related violation that may pose significant risk and threat to human or ecosystem health shall be immediately communicated to relevant public agencies and disclosed.*	Yes
Comment	Assessment: The site did not have any water-related compliance violations in the past year, so there was nothing to be communicated or disclosed.	
	Photographic Evidence from Audit	
		Yes
Comment	The photos have been removed as these are considered confidential to the site.	