

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)



Audit Number: AO-000823

SITE DETAILS

Site: **Apple - Viborg Data Center**
Address: Blichers Alle 25, Tjele,, 8830, Viborg, DENMARK
AWS Reference Number: AWS-000628
Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: **Certified Core**
Date of certification decision: 2024-Jan-18
Validity of certificate: 2027-Jan-18

AUDIT DETAILS

Audited Service(s): **AWS Standard v2.0 (2019)**
Audit Type(s): **Initial Audit**
Audit Start Date: **2023-Oct-04**
Lead Auditor: **Tanya Christensen**
Audit team participants:
Lisa Seufert
Tanya Christensen, Lead Auditor
Site Participants:

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ADDITIONAL INFO

Summary of Audit Findings: A total of 8 findings were raised during the certification audit, 0 major non-conformities, 2 minor non-conformities, 6 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 30 days of receipt of the audit report by 22-01-2024.

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

The audit team recommends certification of Apple - Viborg 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 plans addressing all findings. Proof of implementation has been requested for the Minors and this will be evaluated during the Surveillance Audit. The client is requested to upload evidence of implementation prior to the Surveillance Audit.

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

The Viborg Data Center is located in the Limfjord watershed, in the northern central part of the Jutland Peninsula in Denmark. The facility consists of one data center, NDS buildings and one administration/logistics building.

The property area is approximately 233 acres and the total building area is 48,000 square meters, the site location is within the Viborg Municipality, Denmark. The water supply is provided by Energi Viborg with water received from the local aquifers in the Viborg region via 12 boreholes at three spring sites. All wells are located within the Randers Fjord watershed. The site receives one domestic and one technical water line. All incoming water is treated at the Nordværket and Sydværket water treatment plants and the site also collects rainwater for supplemental use on-site.

The discharge at the site is handled and treated by Energi Viborg, which flows from the site to the Viborg Central Wastewater Treatment Plant before being discharged to the Nørreå River, a tributary to the Gudenå River, within the Randers Fjord watershed. The site's stormwater discharges to two on-site ponds (infiltration and sedimentation) all stormwater is now stored onsite in the retention ponds and is no longer being discharged into Tjele A. This is within the Limfjord watershed, with the nearest surface water body to the site being the Tjele A.

The site is on a single water incoming line from EnergiViborg, and they are the only recipient. Currently delivered at 80 m³/hr, but can turn it up to 120m³/hr. There are two sedimentation and filtration ponds (4 in total) and a paragraph three protected pond onsite (IWRA). The protected pond was pre-existing, but the storm water ponds were constructed by Apple during the construction phase.

The audit was conducted onsite on the 17-19.10.2023
The onsite audit included the assessment of the Apple Viborg Data Centre facility and all relevant water-related infrastructure.

FINDINGS

WSAS

2 Quality Street North Berwick, EH39 4HW, UNITED KINGDOM

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NUMBER OF FINDINGS PER LEVEL

Observation	6
Minor	2

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FINDING DETAILS

Finding No:	TNR-008125
Checklist Item No:	1.3.3
Status:	Closed
Finding level:	Observation
Checklist item:	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.
Findings:	It is recommended that Apple record monthly volumes of water used, rather than cumulative meter readings.
Finding No:	TNR-008340
Checklist Item No:	1.3.4
Status:	Closed
Finding level:	Observation
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:	Contaminants in groundwater has been identified as a water-related challenge and the site should therefore quantify annual variances in water quality data going forward, to gain an understanding of whether conditions are improving or deteriorating,
Finding No:	TNR-008128
Checklist Item No:	1.3.6
Status:	Closed
Finding level:	Observation
Checklist item:	On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.
Findings:	It is recommended that Apple conduct an ecological survey of the two protected lakes/ponds, in order to benchmark their current ecological status.

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Finding No: TNR-008147
Checklist Item No: 1.5.3
Status: In Progress - CA plan approved
Finding level: Minor
Due date: 2024-Oct-14
Checklist item: The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.
Findings: The site needs to obtain the quantitative status of the aquifer, because the quantitative status assessment is available for all groundwater bodies in EU. This will further support the approach of using a proxy methodology, rather than undertaking a catchment water balance calculation in line with the AWS Guidance. Is the catchment in a water deficit or surplus. There is no clear statement on the water inflows, throughflows and outflows, and water storage within the water body.
Corrective action: Update our Conformity Deck to include the quantitative status of the site/region's groundwater.
Evidence of implementation: We have updated our Conformity Deck with a big picture summary of groundwater balance, information from Viborg Municipality on sustainable withdrawals, and the quantitative status of the groundwater body from the European Environment Agency.

"Because of an abundant supply of groundwater and stable abstraction nationally, there are minimal concerns for water stress or shortages based on availability. In the northern Viborg area (the groundwater withdrawal area for Viborg Vand), the Viborg Municipality estimates that approximately 25% of available groundwater could sustainably be withdrawn from the total volume of the aquifer. Currently, approximately 21% of the aquifer is withdrawn by multiple water users in the northern Viborg area, including Viborg Vand. According to data from the European Environment Agency and Water Framework Directive, the aquifers in the Viborg region (groundwater name/code = DK1-456-191; porous aquifers, moderately productive) are in Good Quantitative status. Based on the available data, water storage for groundwater and surface water levels have remained stable, indicating that the catchment is balanced and thus not in deficit or surplus."

Finding No: TNR-006255
Checklist Item No: 1.5.4
Status: Closed
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 site should endeavour to collect all the relevant information for the site and catchment, rather than signpost third parties to a website where the data exits.

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Audit Number: AO-000823

Finding No:	TNR-008146
Checklist Item No:	1.8.1
Status:	Closed
Finding level:	Observation
Checklist item:	Relevant catchment best practice for water governance shall be identified.
Findings:	The site has identified a practical best practice, the site should consider whether there are any of other relevant catchment best practices for water governance that could potentially be implemented. It is not necessary for the site to implement the identified best practices, but they should pro-actively research practical examples of catchment best practice for water governance.
Finding No:	TNR-006259
Checklist Item No:	3.4.1
Status:	Closed
Finding level:	Observation
Checklist item:	Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.
Findings:	The site should be mindful that any 'business as usual' activities are not usually included in a site's WSP, as they are not aspirational in nature.
Finding No:	TNR-008156
Checklist Item No:	5.3.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2024-Oct-14
Checklist item:	A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.
Findings:	The site must develop a mechanism to disclose and share a summary of their water stewardship performance, to support the requirements of numerous indicators in Step 5.
Corrective action:	Work with Apple internal reporting teams to adjust policies to allow site-specific water disclosure over the next year.
Evidence of implementation:	Scheduled to meet with reporting teams in January to begin conversations around including data center water stewardship performance in our reporting.

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Report Details

Report	Value
Report prepared by	Tanya Christensen
Report approved by	Juan Carlos Ceron
Report approved on (Date)	22-12-2023

Surveillance

Proposed date for next audit
2024-Oct-14

Stakeholder Announcements

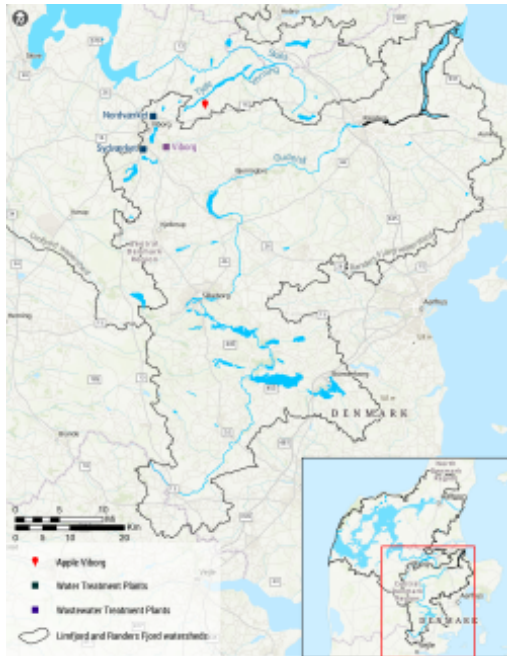
Date of publication	Location
03/08/2023	AWS Website
03/08/2023	WSAS Website
07/08/2023	LimnoTech Website
07/08/2023	Limnotech Twitter
Comment	LimnoTech manage the stakeholder announcements on behalf of Apple.

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Catchment Information



ViborgDK_WaterWastewaterTreatment_31May2023_(1).jpg

Catchment Information

The local catchment where the site is located, this is the Limfjord catchment. It is also important to recognize the origin of the water sources (local groundwater) and the ultimate receiving waterbodies, the Nørreå River, a tributary to the Gudenå River, in the Randers Fjord catchment.

Groundwater is pumped by Viborg Vand from 12 wells at three spring sites, the most important for the utility being directly north of Viborg. Groundwater from this spring area is generally withdrawn from sand-gravel glacial deposits (Viborg Municipality, 2016c). The groundwater has some iron and manganese content that is treated before being pumped into the water distribution system. While the site lies at 47.5-59 meters above sea level, groundwater underlying the site lies at approximately 22.0-31.5 meters above sea level. The site is partly within an area with special drinking water interests, but outside catchments for local water treatment plants and sensitive action areas. The nearest catchment for a local water treatment plant is approximately 400 m to the northwest at Foulum Vandærk (Waterworks). This facility, which does not provide water to Apple, withdraws water from approximately 100 m below ground and is well protected by 30-40 m clay (Viborg Municipality, 2019).

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Client Description and Site Details



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Client/Site Background

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The property area is approximately 233 acres and the total building area is 48,000 square meters, the site location is within the Viborg Municipality, Denmark. The water supply is provided by Energi Viborg, with water received from the local aquifers in the Viborg region via 12 boreholes at three spring sites. All wells are located within the Randers Fjord watershed. The site receives one domestic and one technical water line. All incoming water is treated at the Nordværket and Sydværket water treatment plants and the site also collects rainwater for supplemental use on-site.

The discharge at the site is handled and treated by Energi Viborg, which flows from the site to the Viborg Central Wastewater Treatment Plant before being discharged to the Nørreå River, a tributary to the Gudenå River, within the Randers Fjord watershed. The site's stormwater discharges to two on-site ponds (infiltration and sedimentation) all stormwater is now stored onsite in the retention ponds and is no longer being discharged into Tjele A. This is within the Limfjord watershed, with the nearest surface water body to the site being the Tjele A.

The site is on a single water incoming line from EnergiViborg, and they are the only recipient. There are two sedimentation and filtration ponds (4 in total) and a paragraph three protected pond onsite (IWRA). The protected pond was pre-existing, but the storm water ponds were constructed by Apple during the construction phase. This was designed with the neighbouring industries in mind: University, business park and power station. Apple has purchased and owns all the land.

Summary of Shared Water Challenges

Summary of Shared Water Challenges

The site has identified the following shared water challenges, in order of prioritization:

- Contaminants in groundwater
- High water treatment costs
- Flooding risk in extreme weather events
- Low surface water flow during drought periods

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 a single catchment.

0.1.1.2 *The scope of the proposed certification shall be under the control of a single management system.* ✔
Yes

Comment: The scope of certification 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 site has a homogenous primary production system.

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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 The following documents were supplied:

- Sitewide water services schematic
- Foulwater drainage site plan
- Foulwater drainage sheet
- Sewage run from the site towards WWTP
- Screenshot of site (png)
- screenshot of incoming domestic water to site
- screenshot of incoming process water to site
- map showing location of municipal water treatment and waste water treatment plants, within the Limfjord water catchment.
- map showing location of municipal water supply wells

Apple have supplied a range of maps, that broadly cover the requirements of the indicator. A clear map indicating site boundaries was supplied post-audit, alongside a clearer Utility Map for the site. There is a comprehensive set of maps available for the Apple Viborg site and catchment.

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

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Comment The following documents were supplied:

- Apple Datacentre Potential Stakeholders List,
- Viborg Stakeholder Handout,
- Presentation from Viborg WS Workshop (06.07.23),
- Stakeholder Meeting Slides,
- Viborg Stakeholder Engagement Log.

Apple engaged an external Public Affairs company, to assist with their stakeholder engagement process in Denmark. It is evident that the site is still at an early stage of developing their catchment stakeholder relationships and the site is encouraged to outline how they conduct their stakeholder engagement activities, whether this is done centrally or by the Viborg site. During the audit the site representatives identified a number of other potential stakeholders: local farmer, neighbouring industrial partners that use the onsite storm ponds: university, power station and industrial park. Local schools have also attended the site doing 'Greener Together' programme.

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 The current and potential degree of influence of the existing 3 stakeholders has been mapped the existing stakeholders in numerical format, rather than plotting them on a table. Please reference the Stakeholder Prioritisation page in the 'Viborg Deliverables' spreadsheet.

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 The site supplied a 'DCO Apple Emergency Alert Policy' Policy Notification, which covers all Data Centre Notifications and outlines the process for notifying security when reporting an incident. It contains a 'Notification Flow and Timelines' process flow diagram, which is applicable to all Apple sites.

Flooding and Droughts have been identified as key shared water challenges. There are also plans in place to receive emergency water supply via trucks for process water and use fire protection water for cooling of the datacentre. Apple supplied the 'Viborg Facility Recovery Plan' and the FRP was designed to be applicable to any type of emergency that may affect Apple.

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

Comment The site has supplied an amended simplified site-water balance map in the Standard Conformity presentation, and the balance now lists the on-site water infrastructure. The onsite water infrastructure was verified during the site tour, at the certification audit. The site has also estimated the water in the pipeline network.

The current mapped water balance, does not depict the two onsite ponds that any stormwater is discharged into, but it is acknowledged that the stormwater ponds also receive water from the neighbouring organisations and is shared infrastructure. The site is currently disputing the readings from the rain water meter with the manufacturer and was therefore unable to supply verifiable readings in 1.3.3.

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.* 🔍
Obs.

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Comment The site has supplied monthly data for 2021 and stated in the Standard Conformity presentation, that 2022 Data is available but was not used for the site water balance as higher than normal discharge was observed due to a large tank flush. The site supplied the 2022 post-audit and this is available in the Water Consumption spreadsheet.

Annual variance in incoming water is quantified and shown in a table in the Standard Conformity presentation. The site appears to have an effective program of water meters installed onsite, allowing them to monitor their water use. Water use has increased between years of available data. The water balance is very sensitive to tank flushes and tank maintenance activities, as tanks can be emptied in one calendar year, but discharged the following year. Tank maintenance causes the imbalances in the annual water balance. There is no water-challenge that would be a threat to the site water balance

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.* 🔍
Obs.

Comment The site appears to have a comprehensive testing regime in place and the following areas are sampled and tested externally, by an accredited test lab: Drinking Water, Firewater Tank, Process Water, Rainwater Tank and Tech water main incoming. Sample test reports were reviewed.

Energi Viborg collects water from the local aquifer in the Viborg region and collects water quality data. Groundwater has some iron and manganese that is treated before being pumped in the water distribution system. Water is also treated for minor impurities, odors, and for taste. Contaminants in groundwater has been identified as a water-related challenge and the site should therefore quantify annual variances in water quality data going forward, to gain an understanding of whether conditions are improving or deteriorating

Based on analysis conducted by the European Economic Area Water Framework Directive data, the Nørreå River (which receives treated wastewater from the site) is listed as having "moderate" water quality status or potential and the Tjele Å (which receives surface runoff from the site) is listed as having "bad" water quality status or potential. It is noted that the Tjele Å could be a potential water-related challenge, due to it's bad water quality. However, all stormwater is now stored onsite in the retention ponds and is no longer being discharged into Tjele A.

1.3.5 *Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.* ✅
Yes

Comment The site has identified onsite chemical storage areas and have supplied a photo of a storage container, as well as a site photo indicating the storage areas. A Chemical Product List has been provided for both operations and cleaning, listing the materials stored onsite. This includes a diesel storage unit for the fire system pump.

The sources of pollution were verified during the site tour at the certification audit, and conformed that all storage areas are secured by design.

1.3.6 *On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.* 🔍
Obs.

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Comment	<p>There are four on-site stormwater ponds that are water infrastructure, rather than onsite IWRAs. The stormwater ponds are in good condition, with no evidence of build-up of sand or debris.</p> <p>There are two Paragraph 3 Lakes within the site boundaries that are protected and Apple is not allowed to disturb them. They are protected by the Danish Environmental Protection Agency (20230510 - §3 regulation translation.pdf)., the site supplied the regulatory document supporting this statement, which benchmarks the status that the protected ponds have to meet. Run-off entering the onsite lake is currently treated by a hydrocarbon interceptor system. A site map was supplied post-audit, where the stormwater ponds and two protected lakes/ponds can be identified.</p> <p>It is recommended that the site conducts an ecological survey of the two protected lakes/ponds, in order to benchmark their current status. The audit team did a visual inspection of the main pond during the site visit, it was undisturbed and protected by a fence.</p>	
1.3.7	<p><i>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.</i></p>	<p>✔ Yes</p>
Comment	<p>The site has listed the basic water-related costs i.e. cost of water supply and waste water discharge costs. Apple subsequently supplied water testing costs. More cost categories could become apparent going forward, such as stakeholder engagement activities.</p>	
1.3.8	<p><i>Levels of access and adequacy of WASH at the site shall be identified.</i></p>	<p>✔ Yes</p>
Comment	<p>The site has summarised their WASH provisions and undertaken a WASH status assessment, which is summarised in the 'Site WASH' spreadsheet. Site schematics with WASH locations were also supplied.</p> <p>Apple obtained LEED Gold certification for the Viborg Data Centre, which includes water efficiency targets, although not WASH related.</p>	
1.4	<p><i>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.</i></p>	
1.4.1	<p><i>The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.</i></p>	<p>✔ Yes</p>
Comment	<p>WSAS accepts the site's statement that it has no primary inputs, and that the site uses 100% renewable electricity for their operations. The 'Apple_Environmental_Progress_Report_2022' was supplied to support that statement.</p>	
1.4.2	<p><i>The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.</i></p>	<p>✔ Yes</p>
Comment	<p>The site does not have any outsourced services. There are two on-site kitchens, but there isn't any prepared food and all uniform washing also takes place onsite.</p>	
1.5	<p><i>Gather water-related data for the catchment, including water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH</i></p>	
1.5.1	<p><i>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.</i></p>	<p>✔ Yes</p>

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Comment The site supplied a 'Groundwater Governance in Denmark' presentation from a GEUS representative at a Danish Water Forum. The Geologic Survey of Denmark and Greenland furthers scientific research into Danish groundwater resources and maintains groundwater databases (<https://eng.geus.dk/>) although the site has not identified which resources and databases apply to their location.

The Water Plan 2015-2021 for Jutland and Fyn was supplied, although WSAS notes that this is now out of date. This is the River Basin Management Plan for the region and a proposed work program for the RBMP 2021-2027 is available. Apple supplied the 'Proposal for River basin management plans 2021-2027' for Denmark, by the Environment Ministry, post-audit.

The Danish government has developed special regulated groundwater protection areas. Aquifers in Denmark are designated for either industrial or domestic uses. The Ministry of the Environment is responsible for implementation of the European Union's Water Framework Directive, which seeks to protect and restore water bodies (including groundwater) to prevent deterioration and maintain and reach good chemical and ecological status.


The Viborg Municipality is responsible for providing environmental assessments of the development of industrial/commercial sites, such as this Apple site. Additionally, the Municipality assesses risks to local groundwater as the water source of the region.

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 The site has identified the following water-related legal and regulatory requirements:

- The site's water supply agreement with Energi Viborg was supplied.
- The site has wastewater permits, this was supplied.
- Danish Environmental Protection Agency Paragraph 3 protected lakes.


The site has no regulatory reporting requirements at this time

1.5.3 *The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.* 
in progress

Comment The site has stated that the main source of water for the site is the local groundwater basin in the Viborg vicinity. Water level of this local aquifer provides a proxy as a water balance assessment of local groundwater resources. Data indicates seasonal fluctuations with higher water levels during spring conditions (around March) and lower water levels in the later summer (August and September). However, water levels have limited variation and the Aqueduct Water Risk Atlas, which uses data from 1979-2019, shows a low baseline water stress for the region.

All incoming water is from one catchment and the discharged water ends up in another catchment. If water levels remain stable then the site, and their consultants, have deemed the water balance as being stable. The site supplied data for 3 years on groundwater levels and supplement with WRI Aqueduct Water Risk Atlas post-audit, to give confidence in the groundwater levels having remained the same and the catchment water balance, being balanced. The site has supplied no actual water balance calculations, but are using the watershed levels as a proxy. The water to the site is sourced from the local aquifers in the Viborg region via 12 boreholes at three spring sites.

Finding No: TNR-008147

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.

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Comment The site has outlined their mitigation activities, to ensure that the site does not have a negative water quality impact on the surrounding catchment. The primary water quality concerns for the site involve potential nitrate and pesticide groundwater contamination from agricultural land uses. Groundwater investigation in the region of the site has shown that there is nitrate in both the near-surface and deeper-lying reservoirs, but the nitrate is mainly linked to the near-surface reservoirs.

The site supplied the 'Action plan for the protection of groundwater/drinking water in the Viborg Nord area' (2016) from Viborg Council, again this is an important water governance document. However, it does not supply any up-to-date water quality data for the catchment. Although the site has clearly outlined water quality risks in the catchment, more attention should be paid to actual water quality data from the catchment.

A conditions assessment was completed by the Danish Ministry of the Environment in 2021 for streams, lakes, and groundwater. The results for many parameters can be viewed through a map portal at <https://miljoegis.mim.dk/spatialmap?profile=vandrammedirektiv3tilstand2021>

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 The site has identified the following IWRA's for the catchment, including their status:
 - Two lakes in the city of Viborg: Nørresø (moderate water quality status or potential) and Søndersø (poor water quality status or potential)
 - Nørreå River (moderate water quality status or potential)
 - Tjele Å River (bad water quality status or potential)
 - Tjele Langsø - lake downstream of Tjele Å River (poor water quality status or potential)

Their status was assessed using the European Environment Agency's Water Framework Directive Data: <https://eea.maps.arcgis.com/apps/mapviewer/index.html>
 The site supplied a screenshot from the online data map, showing the status of the above IWRA's. The screenshot would benefit from naming the actual IWRA's for easier identification, but they can be identified on the online tool.

Additional IWRA's
 Wetland Protection Quarter near Ørum (mixed forest and pasture lands to be utilized as wetland protection areas)

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

Comment The site confirmed that there is no current information related to groundwater withdrawal infrastructure utilized by Energi Viborg for water supplies. There are no current known issues with the Energi Viborg water treatment facilities. Energi Viborg has two water treatment plants (Nordværket and Sydværket) in the Viborg area which provide a total of approximately 2.3 million cubic meters (608 million gallons) of water per year to all customers. The two water treatment plants in Viborg supply water to the users with the same pipe network, which is approximately 540 km long. (Energi Viborg, 2023). Site effluent is treated at the Viborg Central Wastewater Treatment Plant. There are no current known issues with the condition of this facility. The site obtained this information through their stakeholder discussions with Energi Viborg and it was confirmed through the stakeholder interviews that Apple had had these discussions with them.





The site does not have any onsite WWTP technology,, but it does have UV treatment system for collected rainwater.

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

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Comment	Denmark is noted for their high quality drinking water and regulations on water and wastewater prices to keep water obtainable for all in Denmark. The site also verified the WASH status in the catchment through their limited stakeholder interactions. These statements were confirmed during the stakeholder interviews, please reference the Standard Conformity presentation.	
	Statistics Denmark reports on progress towards meeting the Sustainable Development Goals and they have recorded that 100% of the population have access to safe sanitation: https://www.dst.dk/en/Statistik/temaer/SDG/globale-verdensmaal/06-rent-vand-og-sanitet/del-maal-02/indikator-1	
1.6	<i>Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site's water challenges.</i>	
1.6.1	<i>Shared water challenges shall be identified and prioritized from the information gathered.</i>	 Yes
Comment	Shared water challenges were identified and prioritized through a workshop with site staff desktop research, and stakeholder meetings.	
	The shared water challenges are listed and have been prioritised using the site water risk metric. The challenges are:	
	<ul style="list-style-type: none"> - Contaminants in groundwater and surface water - High water treatment costs - Flooding Risk - Low surface water flow during drought periods 	
1.6.2	<i>Initiatives to address shared water challenges shall be identified.</i>	 Yes
Comment	The site has identified initiatives to address shared water challenges in the water stewardship plan.	
1.7	<i>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.</i>	
1.7.1	<i>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.</i>	 Yes
Comment	The Apple team conducted a workshop on the 06.07.23 #1, and brainstormed potential water risks. which were adopted as the formal water risks,. These have been assessed on likelihood, severity over a given timeframe, potential costs and business impacts. The risks are listed in the Deliverables spreadsheet:	
	<ul style="list-style-type: none"> - Utility capacity constraints -> increased costs or reduced available water - Restrictions on groundwater use / availability - Internal infrastructure failure -> high temps in electrical/UPS room & data halls -> Loss of cooling water - External infrastructure failure - Incoming water quality issues - Discharge of chemicals - Flooding 	
1.7.2	<i>Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.</i>	 Yes



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Comment	The site has identified 7 Opportunities, in the same workshop presentation #1 and these are more clearly summarised in workshop #2. They have been prioritised and linked back to an identified risk or opportunity, including the cost and value creation.	
1.8	<i>Understand best practice towards achieving AWS outcomes: Determining sectoral best practices having a local/catchment, regional, or national relevance.</i>	
1.8.1	<i>Relevant catchment best practice for water governance shall be identified.</i>	🔍 Obs.
Comment	The site has recorded the following draft statement :The catchment best practice for water governance is multi-stakeholder participation in water related initiatives, which may include supporting catchment level plans and engaging stakeholders to identify opportunities for collaboration. The site added the following best practice post-audit to indicator 1.8.1: encourage sustainable farming practices without pesticides and fertilizers on owned/leased lands.	
1.8.2	<i>Relevant sector and/or catchment best practice for water balance (either through water efficiency or less total water use) shall be identified.</i>	✅ Yes
Comment	The site has stated that: Sector best practices for water balance include efficient water use and replenishment of 100% of water consumption (evaporation), ensuring a net zero impact in the basin. During the audit examples such as filter efficiency and rainwater recycling was identified. Specific practices include rainwater harvesting for non-potable uses and efficient cooling technology. The site also referenced the Volumetric Water Benefit Accounting methodology from the World Resource Institute. https://files.wri.org/d8/s3fs-public/volumetric-water-benefit-accounting.pdf	
1.8.3	<i>Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.</i>	✅ Yes
Comment	The site stated that: Sector best practices for managing water quality include zero liquid discharge (though this is a rare and expensive outcome), on-site stormwater control (e.g., encouraging sustainable farming practices without pesticides and fertilizers on owned/leased lands), minimizing chemical use in water treatment, and ensuring that site discharge does not contribute to water quality challenges in the catchment (particularly nitrate and pesticide contamination).	
1.8.4	<i>Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.</i>	✅ Yes
Comment	Catchment best practices for on-site and off-site IWRA include restoration of habitat to favorable conditions and protection and maintenance of habitat once established, in alignment with River Basin Management Plans.	
1.8.5	<i>Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.</i>	✅ Yes
Comment	The site stated: Sector best practices for WASH services include provision of safely managed WASH services to employees on-site and support of provision of safely managed WASH services to surrounding communities. No actual catchment examples have been supplied or identified. Other best practice identified during the audit, includes alignment with the WASH4Work WASH pledge, and providing free sanitary products at the Data Center site.	

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2	STEP 2: COMMIT & PLAN - Commit to be a responsible water steward and develop a Water Stewardship Plan	
2.1	<i>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.</i>	
2.1.1	<i>A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments:</i> <ul style="list-style-type: none"> - 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. 	 Yes
Comment	The site supplied the site statement template, and this meets the requirements of the indicator. A picture was also supplied, to show a signed agreement in situ, which was verified during the site tour.	
2.2	<i>Develop and document a process to achieve and maintain legal and regulatory compliance.</i>	
2.2.1	<i>The system to maintain compliance obligations for water and wastewater management shall be identified, including:</i> <ul style="list-style-type: none"> - Identification of responsible persons/positions within facility organizational structure - Process for submissions to regulatory agencies. 	 Yes
Comment	The 'Legal Compliance' spreadsheet, lists any water related compliance obligations. It outlines the compliance obligations, responsible people, and process for submission to regulatory agencies. The site has a clear system in place to maintain compliance obligations, but are currently not required to report against any compliance issues. The site supplied additional information to support this indicator, such as their agreement with Energi Viborg regarding connection and sustained service of drinking water and cooling water supply, the handling of oils and chemicals procedure and their discharge permit.	
2.3	<i>Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.</i>	
2.3.1	<i>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.</i>	 Yes
Comment	An appropriate water stewardship strategy has been supplied, that meets the requirements of the indicator. It identified the overarching mission, vision and goals of Apple global and local towards water stewardship.	


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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 The site Water Stewardship Plan (WSP) and it contains six objectives, with a set of actions against them and SMART targets. The structure of the WSP meets the requirements of the indicator, including how it will measured and monitored, timeline to implement, cost/resource needs, who is responsible for the action and how the action links to shared water challenges and AWS outcomes.

It was noted that some of the actions could be considered 'business as usual' rather than aspirational targets, but at this stage is reflective of the site just starting the AWS implementation process at the Viborg Datacentre. This will be monitored at future audits.

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.*


Yes

Comment A 'Viborg Data Centre Source Vulnerability Assessment' was supplied, which assesses the sites current and future water situation. The site has had discussions with relevant public-sector and infrastructure agencies. It was confirmed through the stakeholder interview process, that Apple has engaged with them. The 'water quantity issues and concerns' and 'water quality issues and concerns' sections addresses some identified water risks and what the implications are.

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3 STEP 3: IMPLEMENT - Implement the site's stewardship plan and improve impacts	
3.1	<i>Implement plan to participate positively in catchment governance.</i>
3.1.1	<i>Evidence that the site has supported good catchment governance shall be identified.</i> ✔ Yes
Comment	The site has one objective in their WSP that contributes towards good water governance, and it identified two targets: Apple has historically had a small grants programme, a means to engage with communities around datacentres.
3.1.2	<i>Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.</i> ✔ Yes
Comment	There are no non-regulatory water rights to consider. Water is provided to the site from Energi Viborg and no indigenous groups were identified during the stakeholder prioritization and engagement process.
3.2	<i>Implement system to comply with water-related legal and regulatory requirements and respect water rights.</i>
3.2.1	<i>A process to verify full legal and regulatory compliance shall be implemented.</i> ✔ Yes
Comment	The Legal Compliance spreadsheet confirms that full legal and regulatory compliance has been implemented. The site is currently developing an action plan with a proposed testing regime, that will require approval. This will be reviewed at the surveillance audit.
3.2.2	<i>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.</i> ✔ Yes
Comment	Water rights are not part of the site's legal and regulatory requirements, as water is supplied by Energi Viborg.
3.3	<i>Implement plan to achieve site water balance targets.</i>
3.3.1	<i>Status of progress towards meeting water balance targets set in the water stewardship plan shall be identified.</i> ✔ Yes
Comment	<p>There are 2 objectives in the WSP that contribute towards water balance targets, with 3 targets in total. Some targets contribute towards more than one AWS Outcome. The water balance targets are:</p> <ol style="list-style-type: none"> 1. Address on-site leaking pipe so no water is lost to leaks 2. Monthly review of water meter data to identify leaks" 3. Evaluate improvements to the rainwater catchment system <p>Progress is recorded against all actions. The site is working towards other optimisation projects, such as recirculating process water, so the tanks will not have to be flushed.</p>
3.3.2	<i>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.</i> ✔ Yes

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Comment	<p>Water scarcity is not a shared water challenge, and whilst the site does not have any specific targets related to water use efficiency either, the current cooling system is designed for high efficiency single use of water. The site has stated that it is using so little water, that it is hard to reduce consumption. This was reviewed and verified at the certification audit and site tour.</p> <p>The site has increased data hall temperatures but that only has minimal impact on water reduction. A “cold” summer like this year (2023) has larger reductions in consumption than fine-tuning operations.</p>	
3.3.3	<i>Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.</i>	 Yes
Comment	The site does not re-allocate water directly.	
3.4	<i>Implement plan to achieve site water quality targets</i>	
3.4.1	<i>Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.</i>	 Obs.
Comment	<p>The site has three objectives in their WSP that contributes towards the water quality AWS outcome, with a total of 4 targets, these are:</p> <ol style="list-style-type: none"> 1. Evaluate improvements to the rainwater catchment system 2. Implement sodium hypochlorite on-site water treatment for technical water 3. Renew discharge permit 4. Annual maintenance of hydrocarbon interceptor system and on-site stormwater pond/lake <p>Progress is recorded against all targets.</p>	
3.4.2	<i>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.</i>	 Yes
Comment	<p>Best practices related to water quality (Indicator 1.8.3) are included. Water quality has been identified as a shared water challenge.</p> <ul style="list-style-type: none"> - Maintaining storm water infrastructure - Minimising chemical use in water treatment <p>Apple is trialling out a facilities condition assessment, which is a full review of civil engineering facilities, including stormwater infrastructure. It is expected to be rolled across Apple sites and WSAS will monitor the outcome of this process in surveillance years. Apple is also looking at minimizing chemical use in water treatment.</p>	
3.5	<i>Implement plan to maintain or improve the site’s and/or catchment’s Important Water-Related Areas.</i>	
3.5.1	<i>Practices set in the water stewardship plan to maintain and/or enhance the site’s Important Water-Related Areas shall be implemented.</i>	 Yes
Comment	<p>The WSP contains two objectives that support IWRA and the 3.5 criteria covers both site and catchment IWRA.</p> <ol style="list-style-type: none"> 1. Annual maintenance of hydrocarbon interceptor system and on-site stormwater pond/lake 2. Evaluate education or water small grant opportunities 3. Consider sale / donation of non-contiguous land for wetland protection measure. <p>The site has activities in place to maintain the onsite IWRA.</p>	

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- 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 The spreadsheet was reviewed under 1.3.8, it provides evidence of the site's provision of WASH, which was confirmed during the on-site audit
- There are 20 bathrooms on site. and the Danish Working Environment Authority guarantees one toilet for every 15 people, so the site meets this standard.
<https://tema.3f.dk/bjmfimmigrant/health-and-safety/food-bath-and-toilet-at-work>
- The site supplies free sanitary products in the toilets, which is also considered best practice under WASH.
- 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 The site does not have direct withdrawal from source water bodies and does not discharge wastewater directly to water bodies, and thus is not impinging on the human right to safe water and sanitation of communities. Additionally, no indigenous groups were identified during the stakeholder prioritization and engagement process.
- 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 The site has stated that it does not have any primary inputs or outsourced services (please reference 1.4.1/1.4.2) as such there is no Indirect water use target in the WSP.
- 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 The site has stated that Apple does engage with its suppliers globally, but those engagements do not directly relate to this site. The site did not identify consistent indirect water use. Therefore, indirect water use targets were not included in the water stewardship plan.
- The site only engages with its energy suppliers and this is explained in the Environmental Progress Report. The site has long-time supply contracts (p.92) with renewable energy generators and the site is 100% run off renewables. Referenced in 1.4.1
- 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

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Comment	<p>The site has engaged with the following owners of shared water-related infrastructure: Viborg Municipality and Energi Viborg. This is evidenced in the Stakeholder Engagement Log and further verified during the stakeholder interviews.</p> <p>The technical water is not shared with any other stakeholders, Energi Viborg is the supplier and Apple is the only client/receiver of water. The site has discussed timeframe of potential repairs to supply line should an incident occur and Energi Viborg stated repairs would occur in less than 12 hours. The process water tank holds water for 1.5 day during extreme summer conditions. Viborg Municipality has stated that phosphorus is a concern during the wastewater treatment process. These statements are recorded in the Stakeholder Engagement and were verified through the stakeholder interview process.</p> <p>The site has a very short 4-months summer water use 'season', where water is used for cooling the data halls, otherwise it is cooled by air conditioning.</p>
3.9	<p><i>Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.</i></p>
3.9.1	<p><i>Actions towards achieving best practice, related to water governance, as applicable, shall be implemented.</i></p>
Comment	<p>The site links actions in their WSP against Best Practice and the Apple Viborg site has one objective linked to Good Governance. The 'Support community water initiatives' has two targets and the following actions have been recorded:</p> <p>* Viborg Municipality was approached about any community initiatives in need of support, they said there were none at this time.</p> <p>* Apple has supported the Green Together 2022, which included 2 weeks of events to introduce sustainable initiatives to the community, specifically children.</p> <p>The site has also recorded the following action: encouraging sustainable farming practices without pesticides and fertilizers on owned/leased lands. This has also been implemented and evidence is uploaded against 1.2.1.</p>
3.9.2	<p><i>Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.</i></p>
Comment	<p>The site has listed water balance actions- in their WSP and has linked them to achieving the site's defined best practice outcomes. In terms of implemented actions, the site has estimated that 458 m3 of rainwater was captured and used from the roof in 2022. This can be seen as a small initiative towards improving water retention in the catchment and contributing towards the catchment water balance.</p>
3.9.3	<p><i>Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.</i></p>
Comment	<p>The site is implementing water quality actions and these are linked to the best practice defined by the site. The Best practices tab in the Viborg Deliverables spreadsheet, states that Apple promotes sustainable farming practices, with no use of pesticides and fertilisers on the land that they lease.</p>
3.9.4	<p><i>Actions towards achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas shall be implemented.</i></p>
Comment	<p>The site is implementing IWRA maintenance actions and these are linked to the best practice defined by the site. Apple has submitted an application to the municipality to obtain an exception under paragraph 3 to interact with the onsite protected ponds, in order to develop maintenance plans.</p>

Yes

Yes


Yes

Yes

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3.9.5	<i>Actions towards achieving best practice related to targets in terms of WASH shall be implemented.</i>	 Yes
Comment	Apple provides free sanitary products in the women's toilets, which was verified by the auditor during the onsite audit.	

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4 STEP 4: EVALUATE - Evaluate the site's performance.	
4.1	<i>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.</i>
4.1.1	<i>Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated.</i>
Comment	<p>WSAS acknowledges that the site is at the early stages of implementing their WSP and therefore the ability to evaluate performance against targets. The WSP records 'Evaluation of Progress Against Targets [4.1.1]' and records the progress and performance against the 6 objectives in the plan.</p> <p>The site's WSP is structured to capture the outcome of the evaluation process and the internal evaluation process is currently done through quarterly meetings. Apple conduct quarterly meetings with the sites water stewardship team and review the WSP. The WSP reflects what the site is doing, rather than drive it, and provides a good record of performance evaluation.</p>
4.1.2	<i>Value creation resulting from the water stewardship plan shall be evaluated.</i>
Comment	<p>The structure of the sites WSP captures the relevant information for this indicator. The Water Stewardship Plan describes the value created for the site from the actions in the plan. It describes the costs and resources that went towards achieving this target. WSAS notes that this is the first iteration of the WSP and a fuller evaluation of value creation is expected in future years.</p> <p>Apple have conducted a risk-adjusted cost of water exercise. While water scarcity is not an issue at this basin, monitoring of the site's incoming water quality as well as outgoing water quality is recommended. The price increases for water tariffs for this basin have risen steadily historically and will likely continue to rise to reflect the cost needed for necessary water quality enhancement, such as through improved or additional wastewater treatment plants. The methodology will likely be utilised on the WSP outcomes going forward.</p>
4.1.3	<i>The shared value benefits in the catchment shall be identified and where applicable, quantified.</i>
Comment	The Water Stewardship Plan describes the shared value created for the catchment from the actions in the plan and the site has identified some shared value benefits such as: Reduced withdrawals allow for more water to be available for other uses in the catchment, potentially reducing costs.
4.2	<i>Evaluate the impacts of water-related emergency incidents (including extreme events), if any occurred, and determine the effectiveness of corrective and preventative measures.</i>
4.2.1	<i>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.</i>
Comment	The site has stated that there have been no water related emergency incidents over the past year, and an email verifying this has been issued.
4.3	<i>Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.</i>

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4.3.1	<i>Consultation efforts with stakeholders on the site’s water stewardship performance shall be identified.</i>	 Yes
Comment	The site has developed 'Stakeholder Disclosure Emails' and these have been sent to those stakeholders that were engaged as part of the A4WS process. These emails include a description of the site's water stewardship objectives and progress/performance.	
4.4	<i>Evaluate and update the site’s water stewardship plan, incorporating the information obtained from the evaluation process in the context of continual improvement.</i>	
4.4.1	<i>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.</i>	 Yes
Comment	WSAS accepts that because the plan is in its 1st year of implementation, there is currently no need to update the WSP. Updates to the WSP will be made as feedback is received and progress is made, this will be reviewed at the next surveillance audit.	

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5 STEP 5: COMMUNICATE & DISCLOSE - Communicate about water stewardship and disclose the site's stewardship efforts	
5.1	<i>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.</i>
5.1.1	<i>The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.</i> ✔ Yes
Comment	The 'Stakeholder Disclosure Emails' contains a section on who is responsible for the different aspects of delivering the AWS scheme, please see 4.3.1.
5.2	<i>Communicate the water stewardship plan with relevant stakeholders.</i>
5.2.1	<i>The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.</i> ✔ Yes
Comment	The Stakeholder Disclosure emails include a description of the five AWS outcomes and the site's water stewardship objectives and progress/performance, please see evidence in 4.3.1. The site will establish a mechanism to share a summary of its water stewardship performance annually.
5.3	<i>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.</i>
5.3.1	<i>A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.</i> ↗ in progress
Comment	The Stakeholder Disclosure Emails do not contain any information on the sites quantified performance against the targets set in the Water Stewardship Plan. Finding No: TNR-008156
5.4	<i>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.</i>
5.4.1	<i>The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.</i> ✔ Yes
Comment	The Stakeholder Disclosure Emails provide a high-level summary of the sites efforts to address shared water challenges. These emails include a description of the five AWS outcomes and the site's shared water challenges and water stewardship objectives and progress/performance.
5.4.2	<i>Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.</i> ✔ Yes
Comment	Efforts made by the site to engage stakeholders are recorded in the Stakeholder Engagement Log, and that include public-sector agencies. At this stage, the site has not clearly identified their efforts to support public-sector agencies, but it is in the early stages of developing a relationship with the agencies/stakeholders. The Stakeholder Disclosure Emails also include a description of the site's engagement with stakeholder. The emails are uploaded against 4.3.1.
5.5	<i>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.</i>

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5.5.1	<i>Any site water-related compliance violations and associated corrections shall be disclosed.</i>	 Yes
Comment	The site documented that "The site has not had any water-related compliance violations in the past year, so there is nothing to disclose."	
5.5.2	<i>Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.</i>	 Yes
Comment	The site documented that "The site has not had any water-related compliance violations in the past year, so there is nothing to disclose." A formal email confirming this is in 4.2.1.	
5.5.3	<i>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.</i>	 Yes
Comment	The site documented that "The site has not had any water-related compliance violations in the past year, so there is nothing to disclose." A formal email confirming this is in 4.2.1.	

Photographic Evidence from Audit


Yes