W0.1

(W0.1) Give a general description of and introduction to your organization.

General Motors Co. is a global company committed to delivering safer, better and more sustainable ways for people to get around. With global headquarters in Detroit, Michigan, GM employs 180,000 people in nearly 300 facilities across six continents.

GM offers a comprehensive range of vehicles and services in more than 120 countries around the world. The largest national market for its products is China, followed by the U.S., Brazil, United Kingdom, Germany, Canada and Italy. Along with its strategic partners, GM produces cars and trucks, and sells and services for these vehicles through the following brands: Chevrolet and Cadillac globally, and Baojun, Buick, GMC, Holden, Isuzu, Jiefang, and Wuling in certain regions or specific countries.

GM also maintains equity stakes in major joint ventures including SAIC-GM, SAIC-GM-Wuling, FAW-GM in China and GM Korea, as well as subsidiaries such as OnStar, a recognized industry leader in vehicle safety, security and information services and Cruise Automation, a leader in autonomous driving technology.

More information on the new GM is available at www.gm.com.

GM’s commitment to sustainability applies to every part of our business and creates value for customers. It underscores GM’s philosophy of “Customer-Driven Sustainability” – an approach for meeting customers’ needs through sustainability by making the mobile experience safer, more efficient and better integrated with everyday life. As part of that commitment and philosophy, it continually assesses and takes steps to reduce the environmental impact of its products and operations. Focusing on areas such as energy management, carbon and waste intensity reduction, resource preservation and more efficient vehicles through its technological advances, global reach and innovative employees, helps the Company reduce its environmental footprint and also share best practices around the world for broad results.
Sustainability is also an important part of GM’s people and culture. The company integrates sustainability across every business function and through each level of the organization. GM is actively engaged in cross-functional efforts to seize environmental and social opportunities to improve our Company and the communities in which we operate.

The GM Environmental Principles are the foundation for the Company’s environmental efforts and regional-specific policies around the world. Developed over 20 years ago, the Environmental Principles state:

As a responsible corporate citizen, GM is dedicated to protecting human health, natural resources, and the global environment. This dedication reaches further than compliance with the law to encompass the integration of sound environmental practices into our business decisions.

The following environmental principles provide guidance to GM personnel worldwide in the conduct of their daily business practices.

- We are committed to actions to restore and preserve the environment.
- We are committed to reducing waste and pollutants, conserving resources, and recycling materials at every stage of the product life cycle.
- We will continue to participate actively in educating the public regarding environmental conservation.
- We will continue to pursue vigorously the development and implementation of technologies for minimizing pollutant emissions.
- We will continue to work with all governmental entities for the development of technically sound and financially responsible environmental laws and regulations.
- We will continually assess the impact of our plants and products on the environment and the communities in which we live and operate with a goal of continuous improvement.

GM also maintains Environmental Performance Criteria (GM EPC) to support the consistent implementation of the GM Environmental Principles across the globe, particularly where regulatory programs do not clearly address those goals. The GM EPC supplements applicable legal requirements by setting baseline environmental management and performance regardless
of where GM operations are located. The GM EPC provides a common process for planning and implementing resource conservation and pollution prevention or control measures.

General Motors is reporting water security for operations where we have operational control or influence for water use for owned and joint ventures as applicable. Our operations are managed regionally in North America, South America, and International Operations (rest of world) and will be reporting water security company wide, as well as by site where applicable.

**W0.2**

(W0.2) State the start and end date of the year for which you are reporting data.

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Start date</th>
<th>End date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January 1 2017</td>
<td>December 31 2017</td>
</tr>
</tbody>
</table>

**W0.3**

(W0.3) Select the countries/regions for which you will be supplying data.

Argentina  
Australia  
Brazil  
Canada  
Chile  
China  
Colombia  
Ecuador  
Egypt  
India  
Italy  
Mexico  
Republic of Korea  
Russian Federation  
Thailand  
United States of America  
Uzbekistan
Viet Nam
Other, please specify (Rest of the World)

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.
USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.
Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?
Yes

W0.6a

(W0.6a) Please report the exclusions.

<table>
<thead>
<tr>
<th>Exclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small facilities with insignificant water use are excluded. Examples are remote offices with minimal water security issues and low water use.</td>
<td>GM has a robust utility management system operated by a third party globally with invoice verification and auto bill pay in some countries. Small facilities have minimal impact on cost and water security and are not included in the management system.</td>
</tr>
</tbody>
</table>

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.
## W1.2 Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

<table>
<thead>
<tr>
<th>% of sites/facilities/operations</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water withdrawals – total volumes</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

GM measures and monitors 100% of our major facilities water withdrawals using either invoices or meter data on a monthly basis. It is tracked in a global utility database and the data is verified by an independent third party annually. Some small facilities (offices) have water service included in their lease rate and we do not track the water withdrawal. Our estimate is that this represents less than 1% of our water withdrawal. As water management is integrated into our business plan, we set goals for each facility measured and track progress on a monthly scorecard at facility, region, and company level and report to senior management.
<p>| Water withdrawals – volumes from water stressed areas | 100% | GM measures and monitors 100% of our major facilities, including water stressed areas, water withdrawals using either invoices or meter data on a monthly basis. It is tracked in a global utility database and the data is verified by an independent third party annually. Some small facilities (offices) have water service included in their lease rate and we do not track the water withdrawal. Our estimate is that this represents less than 1% of our water withdrawal. As water management is integrated into our business plan, we set goals for each facility measured and track progress on a monthly scorecard at facility, region, and company level and report to senior management. |
| Water withdrawals – volumes by source | 100% | GM measures and monitors 100% of our major facilities water withdrawals by source using either invoices or meter data on a monthly basis. It is tracked in a global utility database by source and the data is verified by an independent third party annually. Some small facilities (offices) have water service included in their lease rate and we do not track the water withdrawal. Our estimate is that this represents less than 1% of our water withdrawal by source, so we measure and monitor 99% of water withdrawal by source. |
| Produced water associated with your metals &amp; mining sector activities - total volumes | &lt;Field Hidden&gt; | &lt;Field Hidden&gt; |
| Produced water associated with your oil &amp; gas sector activities - total volumes | &lt;Field Hidden&gt; | &lt;Field Hidden&gt; |
| Water withdrawals quality | 100% | GM measures and monitors 100% of our major facilities water withdrawal quality either from supplier provided test results or our own lab testing on a monthly basis or more frequently as required by local regulations. Some small facilities (offices) have water service included in their lease rate and we request water quality from the supplier. Our estimate is that this represents less than 1% of our water discharge quality. |
| Water discharges – total volumes | 100% | GM measures and monitors 100% of our major facilities water discharges using either invoices, meter data, or engineering estimates on a monthly basis. It is tracked in a global environmental database on a monthly basis. Some small facilities (offices) have water service, including discharge included in their lease rate and we do not track the water discharged. Our estimate is that this represents less than 1% of our water discharge. |
| Water discharges – volumes by destination | 100% | GM measures and monitors 100% of our major facilities water discharges by destination using either invoices, meter data, or engineering estimates on a monthly basis. It is tracked in a global environmental database on a monthly basis. Some small facilities (offices) have water service, including discharge destination included in their lease rate and we do not track the water discharged by destination. Our estimate is that this represents less than 1% of our water discharge by destination, |</p>
<table>
<thead>
<tr>
<th>Water Discharges – Volumes by Treatment Method</th>
<th>% of Sites/Facilities/Operations</th>
<th>Please Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM measures and monitors 100% of our major facilities water discharges by treatment method from either meters, invoices, or calculations on a monthly basis. It is tracked in a global environmental database on a monthly basis. Some small facilities (offices) have water service, including discharge that are included in their lease rate and we do not track the water quality data. Our estimate is that this represents less than 1% of our water discharge by volume of treatment method.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Water Discharge Quality – by Standard Effluent Parameters | 76-99 | GM measures and monitors 100% of our major facilities water discharges by quality data from lab results on a monthly basis. It is tracked in a global environmental database on a monthly basis. Some small facilities (offices) have water service, including discharge that are included in their lease rate and we do not track the water quality data. Our estimate is that this represents less than 1% of our water discharge by quality data by standard effluent parameters. |

| Water Discharge Quality – Temperature | 1-25 | At facilities where discharge temperature is regulated and the possibility exists for high discharge temperatures, GM measures the discharge temperature on a monthly basis. We estimate that about 2% of our facilities have temperature monitoring included in their process data management parameters and the remainder are not applicable. We do not monitor temperatures where there is no possibility of elevated temperatures as is the normal case for our operations. |

| Water Consumption – Total Volume | 100% | Water Consumption is calculated from withdrawal by source and discharge by source data for 100% of our major facilities. We monitor it on an annual basis as our focus for water security is on withdrawal. Some small facilities (offices) have water service, including discharge that are included in their lease rate and we do not track the water withdrawal or discharge data. Our estimate is that small facilities represent less than 1% of our water consumption - total volume. |

| Water Recycled/Reused | 1-25 | At GM facilities where water is reused or recycled as part of the major supply, e.g. Zero-liquid discharge, we monitor the volume of recycled water. Where we recycle at a local process, e.g. phosphate tank in paint shop, metering is not always used as the volume is not an important parameter, just that we reuse 100% of water from the stage that has higher quality vs. lower quality. We estimate that about 2% of our facilities measure reuse or recycle water on a monthly basis. |

| The Provision of Fully-Functioning, Safely Managed WASH Services to All Workers | 100% | 100% of our facilities provide clean water for drinking, sanitation, cooking and cleaning purposes to our 180,000 employees at 288 facilities globally to the best of our knowledge. WASH is monitored on a monthly basis using water quality information to verify that clean water supply is provided to employees. |

**W1.2b**

*(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?*
GM is restating our energy and water baseline due to asset sales in 2017 consistent with the GHG Protocol. We sold assets in EU, Africa, and India and have restated our baseline intensities in 2010 and each year accordingly. In 2017 we had 13% less withdrawal than in 2016. We attribute the reduction in the most part on removing the water withdrawal from sold operations in 2017. As water withdrawal correlates with vehicle production, future withdrawal is based on vehicle volume and is expected to increase on the average of 2.5% with conservation at 1.5% for a net increase of 1% in withdrawal.

As Consumption is calculated as Withdrawal minus Discharge this would result in a very small volume due to on-site storm water in-fluent that is discharged to combined-sanitary and storm systems. In reality GM measures an average 30% water use from evaporation and losses using engineering water balance methods and is reporting the amount used within facilities, not including storm water. The water balance was done using meters and calculations for various high use Assembly plants. As water consumption correlates with vehicle production, future consumption is based on vehicle volume and is expected to increase on the average of 2.5%, with conservation reduce at 1.5% for a net increase of 1% in consumption.

### W1.2d

#### (W1.2d) Provide the proportion of your total withdrawals sourced from water stressed areas.

<table>
<thead>
<tr>
<th>% withdrawn from stressed areas</th>
<th>Comparison with previous reporting year</th>
<th>Identification tool</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>About the same</td>
<td>WRI Aqueduct</td>
<td>GM uses the WRI Aqueduct model to identify water stress and based on High Overall risk categories, 3 facilities in China exhibit characteristics of high stress. Other facilities from last year that are not included were sold and not accounted for in 2017 water data. The % withdrawal is similar to last year adjusted for sold facilities. A total of 73 GM facilities were evaluated using WRI tool.</td>
</tr>
</tbody>
</table>
### (W1.2h) Provide total water withdrawal data by source.

<table>
<thead>
<tr>
<th>Source</th>
<th>Relevance</th>
<th>Volume (megaliters/year)</th>
<th>Comparison with previous reporting year</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh surface water, including rainwater, water from wetlands, rivers, and lakes</td>
<td>Not relevant</td>
<td>&lt;Field Hidden&gt;</td>
<td>&lt;Field Hidden&gt;</td>
<td>Aside from non-contact cooling water for HVAC, GM uses minimal water from fresh surface water. Rainwater is used at our Detroit Hamtramck Assembly facility as a cost savings compared to discharging it to the City of Detroit, but it is not relevant to Water withdrawal or security and we do not see if relevant in the future.</td>
</tr>
<tr>
<td>Brackish surface water/seawater</td>
<td>Not relevant</td>
<td>&lt;Field Hidden&gt;</td>
<td>&lt;Field Hidden&gt;</td>
<td>We do not use Brackish surface water at any of our over 120 facilities and do not foresee it as relevant in the future.</td>
</tr>
<tr>
<td>Groundwater – renewable</td>
<td>Relevant</td>
<td>1320</td>
<td>About the same</td>
<td>Water withdrawal from renewable wells was similar in 2017 compared to 2016 at 3% less overall after accounting for sale of assets in 2017. Renewable wells are used at manufacturing facilities in Korea, Uzbekistan, and our test facility (Proving Grounds) in Milford, MI, USA. As water withdrawal correlates with vehicle production, future withdrawal is based on vehicle volume and is expected to increase on the average of 2.5%, with conservation reduce at 1.5% for a net increase of 1% in withdrawal. Groundwater from renewable sources is relevant to our operations as it provides a cost effective means to provide process and WASH for 4 of our facilities.</td>
</tr>
<tr>
<td>Groundwater – non-renewable</td>
<td>Relevant</td>
<td>1519</td>
<td>Higher</td>
<td>Water withdrawal from non-renewable wells was higher in 2017 compared to 2016 at 19% overall increased withdrawal. There was an increase due to launch activities at our facility in Silao Mexico facility. Three of our facilities in Mexico withdraw water from non-renewable wells and each facility has some level of water reuse with San Luis Potosi having Zero Liquid Discharge technology. As water withdrawal correlates with vehicle production, future withdrawal is based on vehicle volume and is expected to increase on the average of 2.5%, with conservation reduce at 1.5% for a net increase of 1% in withdrawal. Groundwater from non-renewable sources is relevant to our operations as it provides a cost effective means to provide process and WASH for 4 of our facilities. We usually apply some level of reuse at these facilities to protect the life of the non-renewable well.</td>
</tr>
<tr>
<td>Produced water</td>
<td>Not relevant</td>
<td>&lt;Field Hidden&gt;</td>
<td>&lt;Field Hidden&gt;</td>
<td>GM does not use any produced water at any of our over 120 facilities. If a cost effective source is nearby in the future, GM would consider using produced water as a source.</td>
</tr>
<tr>
<td>Third party sources</td>
<td>Relevant</td>
<td>34653</td>
<td>About the same</td>
<td>At GM sites, 94% of our water withdrawal is managed by a 3rd party, usually a local municipality. The use is similar to last year with 3% overall reduction, after accounting for sold assets in 2017. As water withdrawal correlates with vehicle production, future withdrawal is based on vehicle volume and is expected to increase on the average of 2.5% after accounting for non-contact cooling water for HVAC.</td>
</tr>
</tbody>
</table>
W1.2i

**W1.2i**

*(W1.2i) Provide total water discharge data by destination.*

<table>
<thead>
<tr>
<th>Destination</th>
<th>Relevance</th>
<th>Volume (megaliters/year)</th>
<th>Comparison with previous reporting year</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh surface water</td>
<td>Relevant</td>
<td>13100</td>
<td>Lower</td>
<td>Accounting for sold assets, GM’s water discharge was lower than last year at 10% reduction. Lower production volume and water conservation contributed to the reduction. Our Bedford Indiana foundry implemented a new more efficient waste water treatment system with reduced discharges to the local river. 26% of our sites discharge water to Fresh surface water. As water discharge correlates with vehicle production, future discharge is based on vehicle volume and is expected to increase on the average of 2.5%, with conservation reduce at 1.5% for a net increase of 1% in discharge. Water discharge to Fresh Surface water is relevant to our operations as it provides a cost effective method to discharge treated water that is used in the process.</td>
</tr>
<tr>
<td>Brackish surface water/seawater</td>
<td>Not relevant</td>
<td>&lt;Field Hidden&gt;</td>
<td>&lt;Field Hidden&gt;</td>
<td>GM does not discharge to Brackish surface water at any of our approximately 120 sites and we do not anticipate doing so in the future.</td>
</tr>
<tr>
<td>Groundwater</td>
<td>Relevant</td>
<td>137</td>
<td>Lower</td>
<td>At water challenged sites in Ramos Arizpe, Silao, and San Luis Potosi, Mexico, we use water-reuse technologies to reduce withdrawal. The effluent is mostly naturally occurring salts that are discharged to solar ponds for natural drying and some used for irrigation. The amount discharged is lower by 15% compared to 2016 due to lower production volumes and water conservation. As water discharge correlates with vehicle production, future discharge is based on vehicle volume and is expected to increase on the average of 2.5%, with conservation reduce at 1.5% for a net increase of 1% in discharge. Groundwater discharged from water reuse sites is relevant to our operations as it provides a cost effective means to use water reuse technology.</td>
</tr>
<tr>
<td>Third-party destinations</td>
<td>Relevant</td>
<td>24200</td>
<td>About the same</td>
<td>Accounting for sold assets, water discharge to third parties was similar to last year at 2% reduction due to lower production and water conservation activities. We use 3rd party</td>
</tr>
</tbody>
</table>
### W1.2j

**What proportion of your total water use do you recycle or reuse?**

<table>
<thead>
<tr>
<th>% recycled and reused</th>
<th>Comparison with previous reporting year</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>26-50</td>
<td>About the same</td>
</tr>
</tbody>
</table>

Engineering estimates are used to quantify water that is reused and recycled in most cases. GM maximizes to reuse of water back into the process as it reduces water stress from reduced withdrawal. Examples include reusing rinse water from high purity vehicle body rinse zones to lower quality rinse zones (cascading), wet scrubber water at one foundry is treated and reused, as well as treatment and reuse in Zero liquid discharge systems. In our San Luis Potosi, Mexico Assembly and Transmission plants we use a Zero liquid discharge system for 100% of our water use needs. The amount of water recycled is about the same compared to last year with a 1% reduction from production reduction and water conservation activities. As recycle water helps reduce our withdrawal, we expect to increase it's use in the future. At our Silao Mexico facility we engineered an expansion of the water reuse system and will increase reuse in the future.

### W1.4

**Do you engage with your value chain on water-related issues?**

- Yes, our suppliers
- Yes, our customers or other value chain partners

### W1.4a

**What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?**
% of suppliers by number
1-25%
% of total procurement spend
51-75

Rationale for this coverage
In order to build the most valuable automotive company, we must recognize that our impacts go beyond the walls of GM to include suppliers. Water consumption in our supply chain is important to understand the magnitude and at which tier and industry that it occurs so we can develop a long term reduction plan. Water intensity is 50 times greater in SC and 87% is outside of tier one in steel and agriculture. We selected a combination of high life cycle analysis (LCA) water users and our Strategic Supplier Engagement (SSE) group to focus on Water security in SC. The SSE is comprised of strategic suppliers with the majority of spend and we performed a water consumption LCA on all suppliers and included the top users that were not included in SSE. High water consumption from the LCA and SSE provided a list of 339 suppliers asked to respond to CDP SC. GM gathers CDP SC information to measure continuous improvement of our suppliers and identify any significant risks & opportunities.

Impact of the engagement and measures of success
GM engages our supply chain in water related areas collaboratively through AIAG and CSR Europe in a joint Sustainability guidance statement - "Companies are expected to effectively reduce, reuse, and recycle water with responsible treatment of wastewater discharges to protect the environment and improve overall water quality." , as well as practical guidance on water quality and consumption. This guidance extends to 20,000 GM suppliers and others in the industry. To directly engage with suppliers, GM is a member of CDP Supply Chain - Water and increased the number of responses in 2017 by 118% to 179 suppliers. GM feels that awareness of water security drives success and with 31% supplier reporting company-wide quantifiable targets, 67% are accounting for withdrawal metrics, and 27 of our suppliers suggested collaborative opportunities. Overall 2017 showed improvement in absolute numbers compared to 2016 based on our strategic supplier engagement strategy demonstrating success.

Comment
- The importance of strong supply chain management and relationships is further underscored as new issues arise due to business expansion into emerging markets and increased participation in more advanced technologies. LCA is performed by a third party, Climate Earth for GHG, Water, Energy, and land use using EPA environmental economic input output model.

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement
Innovation & collaboration

Details of engagement
Encourage/incentivize innovation to reduce water impacts in products and services

% of suppliers by number
Less than 1%

% of total procurement spend
Less than 1%

Rationale for the coverage of your engagement
GM, the Lonely Whale Foundation and other partners have joined forces to address ocean plastics and improve vital ocean ecosystems. Together they form NextWave, an open-source initiative working to develop the first commercial scale, ocean-bound-plastics supply chain. NextWave will develop a model that reduces plastic pollution at scale and ensures the resulting supply chain has the infrastructure and support to meet demand in a socially and environmentally responsible way. Ocean bound materials are the perfect example of how a resource can go from linear to circular. NextWave is creating the first cross-industry, commercial-scale global ocean bound plastics supply chain, processing materials collected from river and coastal areas for use in our products and packaging. The group hopes to divert more than 3 million pounds of plastics from entering the ocean within five years, the equivalent of keeping 66 million water bottles from washing out to sea.

Impact of the engagement and measures of success
The initiative will share responsibility in ensuring the development of a sustainable model that reduces ocean-bound plastic pollution at scale, while creating an economic and social benefit for multiple stakeholders. In addition, the working group will ensure that the resulting supply chain has the infrastructure and support necessary to meet demand as well as align with globally approved social and environmental standards. The initiative will also ensure the integrity of the supply chain and resulting product integration through chain-of-custody compliance and external, third-party verification of impact. The group hopes to divert more than 3 million pounds of plastics from entering the ocean within five years, the equivalent of keeping 66 million water bottles from washing out to sea.

Comment

W1.4c

(W1.4c) What is your organization’s rationale and strategy for prioritizing engagements with customers or other partners in its value chain?
As GM’s dealership franchises represent us to our customers, we engage with GM dealerships in a Green Dealer Program. The GM Green Dealer Program has two components:
1. Be recognized based on your environmental sustainability activities
2. Learn how other dealers are incorporating sustainability initiatives into their operations
3. Dealer recognition is based on dealers who have implemented green activities across a wide range of environmental / sustainable criteria at their dealership, including water conservation. Dealers will need to complete an assessment to determine eligibility for the recognition. The Recognition Certificate will be presented by zone management and will be limited to those dealerships who are fully compliant with the GM Facility Image Program.
   - In 2017, we had 528 participating dealers, which is 13% of US dealers and 198 so have received certifications.
   - Having dealers engaging with local communities in sustainability, including water conservation, demonstrates to our customers the importance of water conservation to GM.
GM measures success based on the number of dealerships involved and participating in the GM Green Dealer program.

**W2. Business impacts**

**W2.1**

(W2.1) Has your organization experienced any detrimental water-related impacts?
Yes

**(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and total financial impact.**

**Country/Region**
Mexico

**River basin**
Panuco

**Type of impact driver**
Technology

**Primary impact driver**
Transitioning to water efficient and low water intensity technologies and products

**Primary impact**
Impact on company assets

**Description of impact**
Increases in the frequency of drought conditions can further depress water availability for production in water-stressed areas. GM has production facilities in Mexico, an area that was hit hard by drought in 2017, and there is a risk that increases in the frequency of such events could disrupt production due to lack of water availability. Mexico accounts for approximately 7% of GM’s global production. 7% of GM’s sales and revenues = $10.1 billion and a one month disruption due to water scarcity would create a potential risk of loss of $850,000,000 in revenue. The risk for Mexico facilities on a site basis is substantial and required mitigation to ensure continuance of production.

**Primary response**

Adopt water efficiency, water re-use, recycling and conservation practices

**Total financial impact**

12100000

**Description of response**

GM integrated water management into its annual business planning process and set targets for each facility to reduce water use intensity by 15% by 2020. Reduction methods are implemented at a facility level and include conservation with behavioral activities, improving equipment efficiency to reduce, and reuse. When plants are located in water-stressed areas, special consideration is given to water treatment technologies. Zero Liquid water discharge (ZLD) equipment installed to reuse water in the process, reduce withdrawal from deep, non-renewable wells, and reduce the risk of lack of water for production. The cost to install ZLD was $12M USD and the ongoing operating cost is $100k per year.

---

**W2.2**

*(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?*

Yes, fines, enforcement orders or other penalties but none that are considered as significant

**W2.2a**

*(W2.2a) Provide the total number and financial value of all water-related fines.*

**Row 1**

- **Total number of fines**: 5
- **Total value of fines**: 8175

**% of total facilities/operations associated**
Number of fines compared to previous reporting year
About the same
Comment
Minimal fines at 5 facilities have corrective actions to prevent recurrence.

W3. Procedures

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?
Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Coverage
Full

Risk assessment procedure
Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment
Annually

How far into the future are risks considered?
6 to 10 years

Type of tools and methods used
Tools on the market
Enterprise Risk Management
Databases

Tools and methods used
WBCSD Global Water Tool
WRI Aqueduct

Other, please specify (Internal Company Methods, IBAT)

Comment
Using water risk evaluation tool – WRI Aqueduct out to 2025 provides a comparison of risks in 2017 to those in 2025. Comparing future growth in our 6 year business plan, shows that the risks are getting worse in the water stressed areas in China. Based on our current mitigation plan, future manufacturing planning will incorporate additional measures related to water efficiency and conservation. We use similar activities for our supply chain using life cycle analysis for the high water users.

**Supply chain**

**Coverage**
Partial

**Risk assessment procedure**
Water risks are assessed as part of an enterprise risk management framework

**Frequency of assessment**
Annually

**How far into the future are risks considered?**
6 to 10 years

**Type of tools and methods used**
Tools on the market
Enterprise Risk Management
Other

Tools and methods used
- WBCSD Global Water Tool
- WRI Aqueduct
Other, please specify (Internal Company Methods, LCA)

**Comment**
IBAT is "Integrated Biodiversity Assessment Tool" and LCA is Life Cycle Analysis of water consumption using environmental economic input output analysis by a third party for our entire supply chain of 20,000 suppliers.

**Other stages of the value chain**

**Coverage**
None

**W3.3b**
**W3.3b** Which of the following contextual issues are considered in your organization’s water-related risk assessments?

<table>
<thead>
<tr>
<th>Contextual Issue</th>
<th>Relevance &amp; Inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water availability at a basin/catchment level</td>
<td>Relevant, always included</td>
<td>Local water availability assessment is a local management responsibility. Each GM manufacturing site has a site utility manager (SUM) that provides internal company methods to monitor water supply availability and water quality of supply and discharge water to provide risk management analysis and mitigation. SUM regularly reviews sampling reports from water utility companies and discusses water availability. An example of this in action was at our Assembly plant in Adelaide, Australia the SUM was notified by the local utility that due to drought conditions the local aquifer could experience stress. The plant increased water conservation and began planning a contingency plan. Fortunately, the drought ended and the contingency plan did not have to be implemented which would have cost considerable monies.</td>
</tr>
<tr>
<td>Water quality at a basin/catchment level</td>
<td>Relevant, always included</td>
<td>Local water quality assessment requires local management. Each GM manufacturing site has an Environmental leader that provides internal company methods to monitor water quality to provide risk management analysis and mitigation. The Environmental Leader regularly reviews sampling reports from water utility companies to ensure compliance with safe drinking standards. Each facility has a 3rd party Chemical Manager that looks at water quality for each critical process. An example of this process is at Flint Engine plant where the city decided to switch water supplies and through regular testing GM determined that the quality was not sufficient for engine production and requested the city to change the water supply back to the original supply.</td>
</tr>
<tr>
<td>Stakeholder conflicts concerning water resources at a basin/catchment level</td>
<td>Relevant, always included</td>
<td>Management of site conflicts requires local management. Each GM manufacturing site has a site utility manager (SUM) and environmental engineer (EE) that provides internal company methods to monitor and resolve conflicts of water resources at a local level. These local resources monitor local external stakeholder conflicts with community residents, non-governmental organizations, and other stakeholders involving water resources using newswires and monitoring social media. An example of this was during the Flint water crisis, GM monitored local stakeholder feedback to see if GM could provide any assistance. Water resource scarcity is also part of GM’s Business Continuity Planning process that includes a “Peril” list identifying water risks.</td>
</tr>
<tr>
<td>Implications of water on your key commodities/raw materials</td>
<td>Relevant, always included</td>
<td>GM conducted water life cycle analysis and risk modeling using WBCSD and WRI models at a part and supplier level for auto components suppliers to identify the major users of water to quantify current and future risk implications in our supply chain. GM uses LCA and risk models to quantify water risk in the supply chain for commodities and raw materials. We recently began using a supply chain visibility and mapping tool that provides a visualization of GM’s entire footprint, including our own facilities, our Tier I suppliers, and many of our Tier II suppliers. Using this map as a base and internal company methods we can get answers to questions about supply chain risk by superimposing information like geopolitical events, hurricanes, water scarcity and other possible disruptions. With more than 200 incidents disrupting our supply chain every year, from earthquakes and floods to civil unrest and regulatory actions, it’s easy to see why robust tracking and visibility tools are essential.</td>
</tr>
<tr>
<td>Water-related regulatory frameworks</td>
<td>Relevant, always included</td>
<td>Local regulatory frameworks and tariff assessment requires local management responsibility. Each GM manufacturing site has an environmental engineer (EE) and site utility manager (SUM) that provides internal company methods to monitor current regulatory frameworks and tariffs to provide risk management. Through</td>
</tr>
<tr>
<td>Status of ecosystems and habitats</td>
<td>Relevant, always included</td>
<td>Local potential future changes in the status of ecosystems and habitats requires local management. Each GM manufacturing site has an environmental engineer (EE) that provides internal company methods to monitor future potential changes in wildlife habitats to provide risk management. GM applied the Global Water tool and Aqueduct to all of our major manufacturing facility locations which projects risk to 2025. Additionally, the Integrated Biodiversity Assessment Tool (IBAT) is used at GM for access to on-line maps offering information on protected areas, the location and importance of priority sites for conservation (key biodiversity areas) and threatened species. This is used as a basis to plan for wildlife habitats at GM sites with a goal to have one at each site by 2020.</td>
</tr>
<tr>
<td>Access to fully-functioning, safely managed WASH services for all employees</td>
<td>Relevant, always included</td>
<td>Access to WASH services for all employees requires local management. Each GM manufacturing site has a site utility manager (SUM) and environmental engineer (EE) that provides internal company methods to monitor and manage WASH services for all employees. As water for personal use is essential to our facility operations, our global facilities teams plans for sufficient water for building occupants. SUM regularly reviews sampling reports from water utility companies and discusses water availability with local authorities and may result in mitigating actions. EE receives water quality reports from utility provider or has well water sampled to ensure safe drinking water quality. An example of this is at GM San Luis Potosi Assembly and Transmission plant in Mexico where a Zero Liquid Discharge water system was installed at additional cost to ensure adequate supply of water for the process and for building occupants for WASH and is continuously operated and monitored on a regular basis.</td>
</tr>
</tbody>
</table>

**W3.3c**

**(W3.3c) Which of the following stakeholders are considered in your organization’s water-related risk assessments?**

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Relevance &amp; inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td>Relevant, always included</td>
<td>Water in the life cycle of the use phase of a GM automobile is an order of magnitude more intensive than our own manufacturing use or 22% of our total water footprint. The majority of the use phase water use is for fuel production for use in GM vehicles by our customers based on annual production in 2016. Achievement of GM’s climate change public goals to reduce vehicle emissions by improving fuel economy will help to reduce the water consumption in the vehicle use phase. Chevrolet uses customer engagement as a method to engage customers and provide information to customers specifically on Fuel Economy on a website. It describes the fuel economy features of GM vehicles like Bolt EV with &quot;Regen&quot;</td>
</tr>
<tr>
<td>Relevance &amp; inclusion</td>
<td>Please explain</td>
<td></td>
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<tr>
<td>----------------------</td>
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<td></td>
</tr>
<tr>
<td>Employees</td>
<td>As water management is integrated into GM’s business plan, along with safety, quality, and cost at a facility level, employees are involved in the plans and metrics as a normal course of business. Employees are engaged at each major facility that has a site utility manager (SUM) dedicated to water management and team members that are engaged in the planning process to include water conservation measures on business plans, including goals, objectives, metrics, and countermeasures if the target is not achieved. On a monthly basis, GM reports performance to water target (M3/Vehicle) which is reviewed at each site globally to ensure that the goal is met and if not countermeasures are developed to meet the goal. Also, GM conducts Treasure hunts at facilities to train employees how to identify energy and water efficiency opportunities and implement them.</td>
<td></td>
</tr>
<tr>
<td>Investors</td>
<td>Many of GM’s institutional investors are CDP members and request GM to participate in CDP Water response indicating they are important stakeholders. GM uses CDP Water report to inform investors and others on our water stress, management practices, and performance. The assessment includes life cycle analysis of water use in direct and indirect operations coupled with WRI Aqueduct assessment of current and future risks. Risks are presented in CDP Water report to inform investors and the public. GM made public our CDP Water report in 2017 which gained Leader &quot;A&quot; status to inform our investors. Additionally, we published our annual 2017 Corporate Sustainability Report (page 141) to inform investors and others about water risks as demonstrated in an article titled &quot;Ride the Wave of Water Conservation.&quot; An example, of water risk assessment disclosed in CDP Water and CSR is reusing stormwater for process water at the GM Detroit Hamtramck Assembly plant. The savings equate to nearly $2 million per year for GM. The savings also benefit the city of Detroit. By creating a pond to collect stormwater, we reduce stormwater discharge to the Detroit River that experiences stress during storms as the sewer system is combined sanitary and storm.</td>
<td></td>
</tr>
<tr>
<td>Local communities</td>
<td>Since we share the water sources with the local communities, they are always included as stakeholders. Water risk assessments at a facility level are performed using life cycle analysis in direct and indirect operations coupled with WRI Aqueduct assessment of current and future risks. Local communities are considered in the risk based on water availability in WRI Aqueduct model coupled with local company methods. We have long-standing partnerships developed among our employees, local watershed groups and schools, all focused on watershed education through the Global Rivers Environmental Education Network (GREEN) program, now in its 26th year, having mentored over 17,000 students annually. GM Employees use engagement with local schools to inform communities about water risk in local rivers and tributaries with hands on education, including water sampling. A potential risk was identified at our San Luis Potosi Assembly and Transmission facility in Mexico. The local community shared the deep well non-renewable aquifer with the plant and based on water scarcity risk, GM installed Zero Liquid Discharge equipment and operates it to reuse water and greatly reduce withdrawal providing more water for the local community.</td>
<td></td>
</tr>
<tr>
<td>Relevance &amp; inclusion</td>
<td>Please explain</td>
<td></td>
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<tr>
<td>----------------------</td>
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<td></td>
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<tr>
<td><strong>NGOs</strong></td>
<td>NGOs provide feedback on their concerns about GM’s water management making them an important external stakeholder. The assessment includes life cycle analysis of water use in direct and indirect operations coupled with WRI Aqueduct assessment of current and future risks. Risks are presented in CDP Water report to NGOs and the public. GM uses CDP Water report to inform NGOs on our water stress, management practices, and performance. We partner with groups like WRI on water related issues to ensure our engagement meets NGO expectations. As an example, GM partnered with WRI and Dow to conduct a water risk workshop for internal and external stakeholders. Including NGOs in the workshop provided external stakeholder input and collaboration and reduces GM’s reputational risk as NGOs were involved in the process.</td>
<td></td>
</tr>
<tr>
<td><strong>Other water users at a basin/catchment level</strong></td>
<td>Since GM shares water sources with other commercial users, GM participates with community groups at a local level including other users as stakeholders to understand water supply, quality, and risks for direct operations at the local level. The assessment uses internal company methods with environmental leaders (EL) at site in conjunction with subject matter experts (SME) at company level to assist. Risks are identified based on current and future issues that arise with other users in basins. An example is where GM is working with Michigan Manufacturers Association (MMA) along with other commercial water dischargers to Michigan basins on a collaborative effort to engage with regulators on methods to enhance water quality in the state. GM engages with MMA and other users in regular monthly meetings that include regulators to understand current developments of pending legislation so that potential dischargers can be prepared for future regulations. GM is actively participating with MMA in monthly discussions along with other water users and regulators.</td>
<td></td>
</tr>
<tr>
<td><strong>Regulators</strong></td>
<td>Regulatory risk for water withdrawal and water discharge is determined using life cycle analysis GM has a team at central office, Sustainable Workplaces (SW), and an environmental engineer (EE) at each major facility focused on Environmental compliance and sustainability that engages with regulators at the local, state, and federal levels. EE has regular contact with regulators on compliance and upcoming regulations. Regulators are a key stakeholder as they drive compliance requirements for our facilities. SW and EE regularly interact with local, state and federal regulators on water quality issues at GM facilities globally. An example of risk assessment and mitigation was the pro-active water reuse project at our Detroit Hamtramck that was identified by the local plant working with regulators at the local water utility.</td>
<td></td>
</tr>
<tr>
<td><strong>River basin management authorities</strong></td>
<td>GM has a team at central office, Sustainable Workplaces (SW), and an environmental engineer (EE) at each major facility focused on Environmental compliance and sustainability and a site utility manager (SUM) focused on water management. Local company methods by SUM and EE using input from newswire feeds, information from River basin authorities, and regular meetings and communications with river basin managers are used in the risk assessment. River basin authorities are a key stakeholder as they drive compliance requirements and economic rates for water use and discharge for some of our facilities as applicable. GM engages with River basin management authorities at the local level through regular communications and meetings as needed with the EE and SUM leading the effort. As an example, GM negotiated with the City of Detroit Water and Sewer department to develop a green tariff that GM uses for storm water discharge based on our storm water reuse project at Detroit Assembly plant that saved GM monies and reduced the volume of water discharged to the Detroit river.</td>
<td></td>
</tr>
<tr>
<td>Relevance &amp; inclusion</td>
<td>Please explain</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>Statutory special interest groups at a local level</td>
<td>Since we share the water sources with the local communities, special interest groups are always included as stakeholders. Local GM resources, including environmental engineers (EE) and GM public relations monitor local issues to keep engaged with special interest groups. The Flint Water crisis, where GM has operations was deemed as a reputational risk. An example of engagement is during the Flint water crisis hundreds of GM’s United Auto Workers volunteered to deliver water bottles to local community center and The General Motors Foundation donated $50,000 to the local United Way chapter for the purchase of water filters for city residents. Participating in local aid to the community in Flint MI, where GM has 3 facilities that manufacture vehicles and parts, reduces GM’s reputational risk as we are viewed as supporting the interests of Special interest groups at the local level during a community water crisis.</td>
<td></td>
</tr>
<tr>
<td>Suppliers</td>
<td>GM conducted a life cycle analysis of water use in our supply chain and found water use significant with 50 times the use compared to our own operations. Water stress risk to GM Supply chain could interrupt business operations. Using life cycle analysis for top 100 suppliers water users coupled with WRI Aqueduct model revealed potential overall risk for 4 suppliers in Mexico and China. GM’s local company methods identified these as being mitigated. GM became members of CDP Water Supply Chain in 2014 and continued in 2015-2018. We included high risk suppliers into our comprehensive water management strategy. Engagement with suppliers through CDP Water Supply Chain provides us with risk and management information to aid in the assessment, along with internal company methods. The vehicle interior is the major area of water use with electric power generation as the major industry using water to manufacture auto parts according to our life cycle analysis. Based on tier analysis, our tier 1 suppliers are only 4% of the water use demonstrating that we also need to look further downstream in the supply chain for solutions.</td>
<td></td>
</tr>
<tr>
<td>Water utilities at a local level</td>
<td>GM has a team at central office Sustainable Workplaces (SW), local site utility manager (SUM) and an environmental engineer (EE) at each major facility that engages with water utilities at a local level with regular meetings and communications. As suppliers to many facilities of water and wastewater services, Water Utilities are a key stakeholder to GM. SUM identified a risk of high cost related to stormwater discharge at our Detroit Hamtramck Assembly plant. The SUM and SW met with the Water utility to work out a solution that was agreeable to both parties. GM needed cost savings and Detroit Water needed to reduce stormwater in the combined sanitary and storm system. GM negotiated with the City of Detroit Water and Sewer department to develop a green tariff that GM uses for storm water discharge based on our storm water reuse project at Detroit-Hamtramck Assembly plant. The green tariff provides relief from the sewer fee that was based on acreage and GM installed additional storm water ponds and filtration equipment and is reusing the stormwater in our cooling towers and processes.</td>
<td></td>
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</tbody>
</table>

**W3.3d**

*(W3.3d) Describe your organization’s process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.*
Water use in our direct operations is used for pre-treatment of vehicle bodies prior to painting and weld cooling, machining, and powerhouse operations making it vital for our operations as well as in our supply chain as identified using LCA. Water availability and quality thus requires identification and mitigation of risk in our own operations and in our supply chain to ensure continued production and parts supply. GM’s water risk assessment begins with tracking internal water use information using a global system called GM2100 that monitors water use on a monthly basis. Water use data in the supply chain at tiers 1-6 is provided by Life Cycle assessment (LCA) using USEPA EEIO database based on input spend from over 20,000 suppliers. The analysis is performed annually by Climate Earth providing consumption at supplier, tiers 1-6, and by industry levels. The next step is modeling to identify risk and GM uses WBCSD Global Water Tool and WRI Aqueduct models that provide a screening tool to identify potential water stressed areas globally in direct operations and prioritized by top 10 supply chains. GM uses LCA for supply chain water use data since it includes water use in all tiers. We use WBCSD and WRI models to provide global risk analysis of water for manufacturing in our own operations and in the supply chain. The time horizons for the assessment are current year and 2025. Internal company methods are used at each GM site to review water risk and provide mitigation methods. Each GM site has a site utility manager that is responsible to assess water risks and implement mitigation methods, if needed. Using a supply chain visibility and mapping tool that provides a visualization of GM’s entire footprint, including our own facilities, our Tier I suppliers, and many of our Tier II suppliers we can get answers to questions about supply chain risk by superimposing information like geopolitical events, hurricanes, water scarcity and other possible disruptions.

**W4. Risks and opportunities**

**W4.1**

(W4.1) **Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?**
Yes, only within our direct operations

**W4.1a**

(W4.1a) **How does your organization define substantive financial or strategic impact on your business?**
For direct operations and in our supply chain, GM defines substantive change in their business to be when more than 20% of operating production could be impacted at a company level for ongoing operations (for example an impact to 2 million vehicles of production). The Chief Risk Officer of GM is our Chairman and CEO. The Risk Committee of the Board is responsible for overseeing GM’s management of enterprise-level risks. Additionally, during new construction planning, the site planning
team considers substantive risk as inadequate water supply for direct operations to meet 100% design operating production volumes.

While the risks related to water at any individual GM facility are not substantive to GM in total, our operations in Mexico at San Luis Potosí were identified as substantive during the site planning phase and corrective actions to mitigate the water risks were implemented prior to production start. This includes additional spending for water reuse to meet production water supply requirements and the installation of Zero Liquid Discharge to minimize the impact to GM's operations and the local community.

For supply chain operations, GM has performed life cycle analysis of water consumption of all suppliers and used water consumption information to identify the top 100 suppliers by overall risk using WRI Aqueduct model. Although 4% showed high risk, our experience with current operations show that there is not a substantive risk due to water for these suppliers.

To engage these high risk and other strategic suppliers, GM joined CDP Water supply chain in 2014, continuing in 2017-8 and invited all of our strategic suppliers, including the high consumption suppliers to engage them in water security management.

**W4.1b**

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

<table>
<thead>
<tr>
<th>Total number of facilities exposed to water risk</th>
<th>% company-wide facilities this represents</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>4</td>
<td>1-25</td>
</tr>
</tbody>
</table>

Using WRI Aqueduct high risk overall category, 4 GM direct operations facilities indicated substantive site risk for water stress. One in Mexico and 3 in our joint venture plants in China. The Silao Mexico facility uses deep non-renewable wells that are showing signs of stress and mitigation efforts with near zero liquid discharge are being planned for the site. The risk at Silao was identified by internal company methods by the site utility manager.

**W4.1c**
By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive impact on your business, and what is the potential business impact associated with those facilities?

**Country/Region**
Mexico

**River basin**
Santiago

**Number of facilities exposed to water risk**
1

**% company-wide facilities this represents**
1-25

**Production value for the metals & mining activities associated with these facilities**
(Field Hidden)

**% company’s annual electricity generation that could be affected by these facilities**
(Field Hidden)

**% company’s global oil & gas production volume that could be affected by these facilities**
(Field Hidden)

**% company’s total global revenue that could be affected**
1-25

**Comment**
Silao Mexico plant is experiencing depletion of non-renewable wells. Plans are being made to implement near zero liquid discharge to preserve the wells as well as other water efficiency and conservation measures. Engineering began in 2016-7 and implementation is started in 2018 and will be complete in 2019.

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**Country/Region**
China

**River basin**
Huang He (Yellow River)

**Number of facilities exposed to water risk**
2

**% company-wide facilities this represents**
1-25

**% company’s total global revenue that could be affected**
1-25
Comment
GM is a joint venture in two at risk facilities in the Huang He Basin: Qingdao and Dongyue. This basin experiences a high projected water stress and possible pollution. Both sites are therefore installing rain harvesting and wastewater treatment devices.

Country/Region
China
River basin
Xi Jiang - Bei Jiang
Number of facilities exposed to water risk
1
% company-wide facilities this represents
1-25
% company's total global revenue that could be affected
1-25
Comment
GM is a joint venture in one at risk facility in the Xi Jiang river basin: Liuzhou Assembly and Global Propulsion. This basin experiences a high projected water stress and possible pollution of the water source. This site has therefore installed a wastewater recovery system to save water.

W4.2
(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.
Country/Region
Mexico
River basin
Panuco
Type of risk
Physical
Primary risk driver
Increased water stress
Primary potential impact
Upfront costs to adopt/deploy new practices and processes

**Company-specific description**
The area of San Luis Potosi in Mexico has the only available water source from deep non-renewable wells. Water stress risk from 600 meter deep wells was identified by local company method by surveying the area for available water sources as it was determined that the only source was non-renewable wells indicating a potential for water scarcity. The code name for the project was Catcus, indicating the need for water efficiency and conservation. Similar conditions exist at Ramos and Silao. The original construction project included a Zero liquid discharge facility for water that reuses the majority of water in the process and has no liquid wastewater discharge from the site. Concentrated salts are dried in solar ponds with evaporation losses being the only make up water requirement for the site. These measures have mitigated the risk to date.

**Timeframe**
Current up to 1 year

**Magnitude of potential impact**
Medium-high

**Likelihood**
Virtually certain

**Potential financial impact**
850000000

**Explanation of financial impact**
Mexico accounts for approximately 7% of GM’s global production. 7% of GM’s sales and revenues = $10.1 billion and a one month disruption due to water scarcity would = $850,000,000.

**Primary response to risk**
Adopt water efficiency, water re-use, recycling and conservation practices

**Description of response**
GM integrated water management into its annual business planning process and set targets for each facility to reduce water use intensity by 15% by 2020. Reduction methods are implemented at a facility level and include conservation with behavioral activities, improving equipment efficiency to reduce, and reuse. When plants are located in water-stressed areas, special consideration is given to water treatment technologies. Zero Liquid water discharge equipment is installed to reuse water in the process, reduce withdrawal from deep wells, and reduce the risk of lack of water for production.

**Cost of response**
122000000

**Explanation of cost of response**
Zero liquid discharge equipment and operations are required to maintain the supply of water for direct operations. The initial capital investment was $12M USD and annual operating cost is estimated at $200,000.
### W4.2c

**W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?**

<table>
<thead>
<tr>
<th>Primary reason</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risks exist, but no substantive impact anticipated</td>
<td>WRI Aqueduct model identified 4 high risk suppliers for overall water risk in auto parts manufacturing, plastics, and casting industries, GM's experience with uninterrupted delivery from these 4 suppliers demonstrates that water risk is not substantive as their manufacturing operations have not been disrupted and are meeting reliable supply requirements as a result of mitigating water risks. This assessment will be completed annually to assure continued reliability. We recently began using a supply chain visibility and mapping tool that provides a visualization of GM's entire footprint, including our own facilities, our Tier I suppliers, and many of our Tier II suppliers. Using this map as a base, we can get answers to questions about supply chain risk by superimposing information like geopolitical events, hurricanes, water scarcity and other possible disruptions. With more than 200 incidents disrupting our supply chain every year, from earthquakes and floods to civil unrest and regulatory actions, it's easy to see why robust tracking and visibility tools are essential.</td>
</tr>
</tbody>
</table>

### W4.3

**W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes, we have identified opportunities, and some/all are being realized

### W4.3a

**W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.**

**Type of opportunity**

- Efficiency

**Primary water-related opportunity**

- Cost savings

**Company-specific description & strategy to realize opportunity**

GM is committed to finding ways to not only reduce water used in our operations, but to extend the benefits of more efficient processes to others. For example, GM identified an opportunity to reduce water stress in the City of Detroit at our Detroit Hamtramck Assembly plant and reduce operating cost. Based on water stress in the City during storm events due to combined sanitary and storm drains and the high cost to discharge storm water, GM decided to take action and increase the storm water storage capacity and treat and reuse the rainwater back into the process. We recently finished our first full year reusing storm
water for process water at the Assembly plant. The savings equate to nearly $2 million per year for GM. The project also benefits the city of Detroit: by creating a pond to collect storm water, we reduce storm water discharge to the City which reduces water stress during storm events. Some of the collected water is used in cooling towers and other plant uses. GM is looking to replicate this concept at other sites with similar environmental conditions.

**Estimated timeframe for realization**
1 to 3 years

**Magnitude of potential financial impact**
Low

**Potential financial impact**
2000000

**Explanation of financial impact**
Cost savings in water and sewer cost through the reuse of storm water in direct operations.

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**W5. Facility-level water accounting**

**W5.1**

*(W5.1) For each facility referenced in W4.1c, provide coordinates, total water accounting data and comparisons with the previous reporting year.*

**Facility reference number**
Facility 1

**Facility name (optional)**
Silao Assembly and Global Propulsion

**Country/Region**
Mexico

**River basin**
Santiago

**Latitude**
20.952169

**Longitude**
-101.42697

**Primary power generation source for your electricity generation at this facility**
Oil & gas sector business division

Total water withdrawals at this facility (megaliters/year)
719
Comparison of withdrawals with previous reporting year
Higher

Total water discharges at this facility (megaliters/year)
429
Comparison of discharges with previous reporting year
Higher

Total water consumption at this facility (megaliters/year)
290
Comparison of consumption with previous reporting year
Higher

Please explain
Silao is launching multiple new products and is in pre-production for new products as well as making existing products which is causing an increased consumption of water.

Facility reference number
Facility 2

Facility name (optional)
JV 1 DY

Country/Region
China

River basin
Huang He (Yellow River)

Latitude
37.413322

Longitude
121.373842

Total water withdrawals at this facility (megaliters/year)
1164
Comparison of withdrawals with previous reporting year
Lower
Total water discharges at this facility (megaliters/year)
628
Comparison of discharges with previous reporting year
About the same
Total water consumption at this facility (megaliters/year)
536
 Comparison of consumption with previous reporting year
About the same
Please explain
Water evaporation is high at this site due to southern and very warm climate zone location making consumption lower on percentage basis than average. Also, a large reduction in production resulted in lower water consumption.

Facility reference number
Facility 3
Facility name (optional)
JV 2 Q
Country/Region
China
River basin
Huang He (Yellow River)
Latitude
35.595509
Longitude
120.101662
Primary power generation source for your electricity generation at this facility
<Field Hidden>
Oil & gas sector business division
<Field Hidden>
Total water withdrawals at this facility (megaliters/year)
995
Comparison of withdrawals with previous reporting year
About the same
Total water discharges at this facility (megaliters/year)
512
Comparison of discharges with previous reporting year
About the same
Total water consumption at this facility (megaliters/year)
483
Comparison of consumption with previous reporting year
About the same
Please explain
Small reduction in production and water consumption.

Facility reference number
Facility 4
Facility name (optional)
JV 3 LZ
Country/Region
China
River basin
Xi Jiang - Bei Jiang
Latitude
37.25818
Longitude
122.0536
Primary power generation source for your electricity generation at this facility
<Field Hidden>
Oil & gas sector business division
<Field Hidden>
Total water withdrawals at this facility (megaliters/year)
2416
Comparison of withdrawals with previous reporting year
Higher
Total water discharges at this facility (megaliters/year)
1631
Comparison of discharges with previous reporting year
Higher
Total water consumption at this facility (megaliters/year)
785
Comparison of consumption with previous reporting year
Higher
Please explain
The site had a 10% increase in production resulting in higher water consumption.

W5.1a

(W5.1a) For each facility referenced in W5.1, provide withdrawal data by water source.
Facility reference number
Facility 1
Facility name
Silao Assembly and Global Propulsion
Fresh surface water, including rainwater, water from wetlands, rivers and lakes
0
Brackish surface water/seawater
0
Groundwater - renewable
0
Groundwater - non-renewable
719
Produced water
Third party sources
Comment
Withdrawal is from 300 Meter deep wells and based on stress indicators, mitigation efforts are underway to increase reuse of water back into the process.
Facility reference number
| Facility reference number | Facility 2 | Facility name | JV 1 DY | Fresh surface water, including rainwater, water from wetlands, rivers and lakes | 0 | Brackish surface water/seawater | 0 | Groundwater - renewable | 0 | Groundwater - non-renewable | 0 | Produced water | 0 | Third party sources | 1164 | Comment | Municipal water supply |

| Facility reference number | Facility 3 | Facility name | JV 2 Q | Fresh surface water, including rainwater, water from wetlands, rivers and lakes | 0 | Brackish surface water/seawater | 0 | Groundwater - renewable | 0 | Groundwater - non-renewable | 0 | Produced water | 0 | Third party sources | | | |
Facility reference number
Facility 4
Facility name
JV 3 LZ
Fresh surface water, including rainwater, water from wetlands, rivers and lakes
0
Brackish surface water/seawater
0
Groundwater - renewable
0
Groundwater - non-renewable
0
Produced water
0
Third party sources
2416
Comment
Municipal water supply

W5.1b

(W5.1b) For each facility referenced in W5.1, provide discharge data by destination.
Facility reference number
Facility 1
Facility name
Silao Assembly and Global Propulsion
Fresh surface water
0
Brackish surface water/Seawater
Groundwater
14
Third party destinations
415
Comment
Discharge to Municipal wastewater treatment facility and discharge from water reuse treatment is sent to onsite solar ponds (groundwater) for evaporation.

<table>
<thead>
<tr>
<th>Facility reference number</th>
<th>Facility name</th>
<th>Fresh surface water</th>
<th>Brackish surface water/Seawater</th>
<th>Groundwater</th>
<th>Third party destinations</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility 2</td>
<td>JV 1 DY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>628</td>
<td></td>
</tr>
<tr>
<td>Facility 3</td>
<td>JV 2 Q</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
Third party destinations
512
Comment
Discharge to Municipal wastewater treatment facility

<table>
<thead>
<tr>
<th>Facility reference number</th>
<th>Facility name</th>
<th>Fresh surface water</th>
<th>Brackish surface water/Seawater</th>
<th>Groundwater</th>
<th>Third party destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility 4</td>
<td>JV 3 LZ</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1631</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comment
Discharge to Municipal wastewater treatment facility.

W5.1c

(W5.1c) For each facility referenced in W5.1, provide the proportion of your total water use that is recycled or reused, and give the comparison with the previous reporting year.

<table>
<thead>
<tr>
<th>Facility reference number</th>
<th>Facility name</th>
<th>% recycled or reused</th>
<th>Comparison with previous reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility 1</td>
<td>Silao Assembly and Global Propulsion</td>
<td>11-25%</td>
<td>Higher</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please explain
Wastewater is treated and reused in the process. Based on increased use due to product launch, reuse also increased. Equipment is being installed to increase the amount of reuse water to reduce stress on wells.

<table>
<thead>
<tr>
<th>Facility reference number</th>
<th>Facility 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility name</td>
<td>JV 1 DY</td>
</tr>
<tr>
<td>% recycled or reused</td>
<td>2-10%</td>
</tr>
<tr>
<td>Comparison with previous reporting year</td>
<td>About the same</td>
</tr>
<tr>
<td>Please explain</td>
<td></td>
</tr>
<tr>
<td>Water is reused within the paint shop pre-treatment area by cascading water from high quality rinses to lower quality rinses.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility reference number</th>
<th>Facility 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility name</td>
<td>JV 2 Q</td>
</tr>
<tr>
<td>% recycled or reused</td>
<td>2-10%</td>
</tr>
<tr>
<td>Comparison with previous reporting year</td>
<td>About the same</td>
</tr>
<tr>
<td>Please explain</td>
<td></td>
</tr>
<tr>
<td>Water is reused within the paint shop pre-treatment area by cascading water from high quality rinses to lower quality rinses.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility reference number</th>
<th>Facility 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility name</td>
<td>JV 3 LZ</td>
</tr>
<tr>
<td>% recycled or reused</td>
<td>2-10%</td>
</tr>
<tr>
<td>Comparison with previous reporting year</td>
<td></td>
</tr>
</tbody>
</table>
About the same

Water is reused within the paint shop pre-treatment area by cascading water from high quality rinses to lower quality rinses.

W5.1d

(W5.1d) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

<table>
<thead>
<tr>
<th>Water withdrawals – total volumes</th>
<th>% verified</th>
</tr>
</thead>
<tbody>
<tr>
<td>76-100</td>
<td></td>
</tr>
</tbody>
</table>

What standard and methodology was used?
The verification was conducted in accordance with ISO 14064:3, the AA1000 AccountAbility Principles Standard (2008) and Stantec's Standard Operating Procedures developed for accreditation to ISO 14065

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?
Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

<table>
<thead>
<tr>
<th>Scope</th>
<th>Content</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-</td>
<td>Description of business dependency on water</td>
<td>i. Consistent with 2 of GM's environmental principles: • We are committed to</td>
</tr>
<tr>
<td>wide</td>
<td>Description of business impact on water</td>
<td>actions to restore and preserve the environment. • We are committed to reducing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>waste and pollutants, conserving resources, and recycling materials at every</td>
</tr>
<tr>
<td></td>
<td></td>
<td>stage of the product life cycle. GM has integrated water management into its</td>
</tr>
<tr>
<td></td>
<td></td>
<td>business plan, developed a public goal for water intensity reduction of our</td>
</tr>
<tr>
<td></td>
<td></td>
<td>direct operations, and implemented water efficiency</td>
</tr>
</tbody>
</table>
Description of water-related performance standards for direct operations
Description of water-related standards for procurement
Reference to international standards and widely-recognized water initiatives
Company water targets and goals
Commitments beyond regulatory compliance
Commitment to stakeholder awareness and education
Commitment to water stewardship and/or collective action
Recognition of environmental linkages, for example, due to climate change

projects and conservation measures at our facilities. As GM’s environmental principles require conserving resources, including water at every stage of the product life cycle, our policy is publicly available, extends to all GM operations, and performance standards are established monthly to ensure that we achieve the goals. GM formally supports Automotive Industry Action Group (AIAG) guiding principles for environmental sustainability that includes an expectation that suppliers will reduce water consumption. We disclose this information in our CSR.

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?
Yes

(W6.2a) Identify the position(s) of the individual(s) on the board with responsibility for water-related issues.

<table>
<thead>
<tr>
<th>Position of individual</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Vice President, Global Manufacturing for General Motors Company. The Executive VP manages the Manufacturing Leadership team (MLT) comprised of regional VPs of manufacturing, senior leadership from finance, HR, purchasing, Risk Management, legal, and other functions that provide services to manufacturing. Sustainable Workplaces (SW) - &quot;facilities and environment&quot; VP reports to Executive VP of manufacturing. Strategic plans for facilities and equipment and sometimes tactical measures related to risk mitigation are managed by the members of the MLT, that includes water supply and water discharge risks. The subject matter experts work in SW, so the MLT has access to resources that can quickly respond to risks. Also, Site Plant managers work for regional VP of manufacturing and can provide quick response with local resources.</td>
<td></td>
</tr>
</tbody>
</table>
(W6.2b) Provide further details on the board’s oversight of water-related issues.

<table>
<thead>
<tr>
<th>Frequency that water-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which water-related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
</table>
| Scheduled - all meetings | Monitoring implementation and performance  
Overseeing acquisitions and divestiture  
Overseeing major capital expenditures  
Providing employee incentives  
Reviewing and guiding annual budgets  
Reviewing and guiding business plans  
Reviewing and guiding major plans of action  
Reviewing and guiding risk management policies  
Reviewing and guiding strategy  
Reviewing and guiding corporate responsibility strategy  
Setting performance objectives | The Executive Vice President for Global Manufacturing leads the Manufacturing Leadership Team (MLT) comprised of Manufacturing VPs for all global regions. Responsibility for strategic water related issues resides in MLT due to the direct impact of water security on GM’s direct operations and in the supply chain as the team has overall responsibility for business continuity. Water subject matter expertise resides within Sustainable Workplaces (SW) team. The VP of SW is a member of the MLT and reports monthly on performance to water targets. The MLT meets monthly and a standard agenda item is performance to GM’s public water withdrawal goal in cubic meters of water per vehicle for each region as presented by the VP of SW. If a target is not met, countermeasures are presented to ensure there is a plan to meet the targets. Additionally, business continuance and risk management are part of the team’s responsibilities, including capital allocation. All of the support functions - HR, Finance, Purchasing, Quality, Safety, and Sustainable Workplaces are represented on the team. |

(W6.3) Below board level, provide the highest-level management position(s) or committee(s) with responsibility for water-related issues.

Name of the position(s) and/or committee(s)
Other C-Suite Officer, please specify (Executive Vice President Manufacturing)
Responsibility
Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
More frequently than quarterly

Please explain
Water security risks at the site level for direct operations are identified and assessed by Plant Directors (PD) supported by water subject matter experts within the MLT that is led by Exec VP Manf. Water use per vehicle compared to target is reported to PD monthly. Mitigation activities for business continuance are PD responsibility supported by SW. Any significant issues that cannot be mitigated are referred to the MLT for resolution on an as needed basis. The nature of the reporting to MLT is direct to the Executive Vice President for Global Manufacturing and CFO based on authorized capital allocation approval levels. If the PD has the authority level to spend monies to mitigate a particular water stress issue, they can do so without C-Suite approval. PD have site level profit and loss responsibility and access to resources from the MLT for mitigation actions related to water security. PD each have Water stewardship on their individual site business plan monitored monthly.

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?
Yes, direct engagement with policy makers

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?
Engagement with policy makers is done appropriately at the local level by our site Environmental Leaders (EL) who are part of a central team, Sustainable Workplaces (SW). Since SW is aware of global activities and charged with supporting our environmental principles, there is consistency in activities to influence policy with local municipal entities by our ELs. Site ELs report to VP of Sustainable Workplaces and identify any inconsistencies in activities related to our water policy and company environmental commitments for guidance and corrective action.

W7. Business strategy

W7.1
Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

<table>
<thead>
<tr>
<th>Are water-related issues integrated?</th>
<th>Long-term time horizon (years)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, water-related issues are integrated</td>
<td>5-10</td>
<td>Strategic planning for facilities includes evaluation of water security in the local areas that new facilities are being planned. Along with other planning activities, water availability and quality are considered. If an area has water stress, then the business plan will include additional capital for water reuse, e.g. Zero Liquid Discharge or other reuse technologies to reduce the stress on local water supplies as needed. Similarly for existing facilities that discover water stress issues, capital planning will include mitigation for water reuse. An example is at our Assembly plant in Silao Mexico that is served by deep non-renewable wells where wells began showing stress and a plan was developed and currently being implemented to increase the amount of water reuse to relieve the stress on the wells. The 5-10 year planning horizons coincide with GM’s mid-term and long term planning cycles for product programs.</td>
</tr>
<tr>
<td>Yes, water-related issues are integrated</td>
<td>5-10</td>
<td>GM’s water intensity reduction goals are long term (2010-2020) and are integrated into our long term objectives. Targets are established for regions and sites and progress is evaluated monthly as water is integrated into our Global Management System (GMS). If targets are not met, countermeasures are developed to meet the targets and reviewed by management regularly. The 5-10 year planning horizons coincide with GM’s mid-term and long term planning cycles for product programs.</td>
</tr>
<tr>
<td>Yes, water-related issues are integrated</td>
<td>5-10</td>
<td>As facilities plans reveal a need for capital investment for water security at facilities, the required monies are included in our 5 year portfolio spending plans. An example is at our Assembly plant in Silao Mexico that is served by deep non-renewable wells where wells began showing stress and a plan was developed and included in our portfolio plan to spend millions of USD on water reuse to reduce water stress on the wells. The 5-10 year planning horizons coincide with GM’s mid-term and long term planning cycles for product programs.</td>
</tr>
</tbody>
</table>

What is the trend in your organization’s water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

<table>
<thead>
<tr>
<th>Water-related CAPEX (+/- % change)</th>
<th>Anticipated forward trend for CAPEX (+/- % change)</th>
<th>Water-related OPEX (+/- % change)</th>
<th>Anticipated forward trend for OPEX (+/- % change)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>592</td>
<td>-50</td>
<td>219</td>
<td>-50</td>
</tr>
</tbody>
</table>
W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

<table>
<thead>
<tr>
<th>Use of climate-related scenario analysis</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>In 2018, GM conducted a Climate Workshop (Scenario Analysis) using a 2 degree scenario. The time frame of the analysis was out to 2030. The inputs for the analysis included a number of trends and forecasts such as vehicle sales, technology and innovation, policies and regulations, energy, consumer behaviors, etc. (i) The key assumption is that the world is on a 2 degree C path which has implications for key drivers of our business such as vehicle fuel efficiency and GHG emission standards; electric vehicle miles traveled, vehicle-to-vehicle/customer/infrastructure connectivity, the sharing economy and mobility as a service, fleet turn-over rates and advance vehicle technology adoption rates, energy transition, and policies that put a price/value on carbon. (ii) Analytical Methods – axes of uncertainty were evaluated and two were selected to develop and analyze different worlds in which GM could be operating in the future. A cross-functional team is reviewing the results.</td>
</tr>
</tbody>
</table>

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

No

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

Yes

Please explain

GM considers the "True cost of water" when evaluating a business case for water. The True cost includes water supply, energy cost to pump and heat, disposal costs, maintenance, infrastructure, and risk factor cost. We are participating with other companies in a project with The Water Environment & Reuse Foundation to develop water reuse specifications and tools. One of the tools being developed is an ROI water calculator that will incorporate a shadow price of water for business case evaluations.

W8. Targets

W8.1
(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

<table>
<thead>
<tr>
<th>Levels for targets and/or goals</th>
<th>Monitoring at corporate level</th>
<th>Approach to setting and monitoring targets and/or goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-wide targets and goals</td>
<td>Targets are monitored at the corporate level</td>
<td>One of GM's environmental principles is to conserve resources as stated in our 2017 Corporate Sustainability Report, page 130 - “We are committed to reducing waste and pollutants, conserving resources, and recycling materials at every stage of the product life cycle”. GM has publicly committed to reduce Water withdrawal intensity (M3/Vehicle), including all manufacturing and non-manufacturing facility water withdrawal (municipal, surface, well), normalized by vehicle production by 15% from 2010 baseline to 2020. The goal was set based on consideration of the previous 10 year reduction of over 40% (2000-2010). A straight line extrapolation would equate to 100% reduction by 2022, which is not feasible. We used aggressive, but reasonable estimates of reduction based on the law of diminishing return to set 2020 goal. Targets are set each year to meet the 2020 goal at global, regional, and site levels. We are currently on track to meet the pathway by 2020 with 12% reduction in 2017 since 2010. Another water related public goal was set by GM to improve biodiversity at our global facilities with a baseline in 2010 to 2020. The goal is to improve wildlife habitats by having a Wildlife Habitat Certification (or equivalent) at each GM manufacturing site where feasible by 2020. The goal was established to support one of our environmental principles &quot;We are committed to actions to restore and preserve the environment.&quot; We added 11 new certified wildlife habitats during 2017, thanks to the commitment and enthusiasm of our manufacturing employees and leadership. We are currently at 81 percent of our goal.</td>
</tr>
<tr>
<td>Business level specific targets and/or goals</td>
<td>Goals are monitored at the corporate level</td>
<td></td>
</tr>
<tr>
<td>Site/facility specific targets and/or goals</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number
Target 1

Category of target
Product water intensity

Level
Company-wide

Primary motivation
Reduced environmental impact

Description of target
We measure and manage resources, including water use at all manufacturing locations, engineering centers, parts distribution centers and proving ground sites around the world. The target is to reduce water withdrawal intensity (M3/Vehicle) at all global facilities by 15% from 2010 to 2020. Our strategy across these facilities, however, has common attributes: -It’s holistic, in that we approach resource conservation from a systems perspective to develop optimal strategies. -It’s heavily reliant on
innovation, using as much creativity and out-of-the-box thinking in our conservation efforts as we do in innovating new vehicle technologies. In fact, we often cross functions, such as manufacturing and vehicle development, as we work to realize new resource efficiencies. Water conservation and efficiency is integrated into our business plan with dedicated resources, funding, and monthly scorecard monitoring and countermeasures requirements for non-conformance.

Quantitative metric
% reduction per product

Baseline year
2010
Start year
2011
Target year
2020
% achieved
78

Please explain
GM has reduced water intensity by 12% since 2010 with water efficiency projects, water reuse, and conservation activities. We are well on our pathway to achieving our target by 2020 with 78% performance to goal compared to 70% pathway timing.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal
Watershed remediation and habitat restoration, ecosystem preservation

Level
Company-wide

Motivation
Reduced environmental impact

Description of goal
The goal is to improve wildlife habitats by having a Wildlife Habitat Certification (or equivalent) at each GM manufacturing site where feasible by 2020 from a baseline of 2010. The goal was set to support one of our environmental principles "We are committed to actions to restore and preserve the environment." Setting a global goal provides each facility the opportunity to demonstrate our commitment.

Baseline year
2010
Start year
2011
End year
2020
Progress
We added 11 new certified wildlife habitats during 2017, thanks to the commitment and enthusiasm of our manufacturing employees and leadership. We are currently at 81 percent of our goal compared to 70% pathway with a total of 68 wildlife habitats. We use Wildlife Habitat Council to provide advice and use their conservation certification as the metric to track performance to our target. Our Biodiversity goal aligns with our water withdrawal target to improve our water security.

W9. Linkages and trade-offs

W9.1

(W9.1) Has your organization identified any linkages or tradeoffs between water and other environmental issues in its direct operations and/or other parts of its value chain?
Yes

W9.1a

(W9.1a) Describe the linkages or tradeoffs and the related management policy or action.
Linkage or tradeoff
Increased energy use
Tradeoff
Type of linkage/tradeoff
Increased energy use
Description of linkage/tradeoff
Increased GHG emissions are acceptable at facilities with high water stress for water reuse to ensure sustainability efforts in areas where growth is needed due to market demand, as GHG emissions increases due to water reuse are extremely small compared to total Company emissions. For the San Luis Potosi plant, the water reuse system emits only 1% of the total plant GHG emissions. Although the water reuse has increased in 2017 due to production increases, the percentage of tradeoff remains similar to 1% increase in GHG emissions.
Policy or action
GM’s Sustainable Workplaces policy is to reuse water at sites with extreme water stress to ensure reliable water supply for production and employee water, sanitation, and hygiene. An example of this is at San Luis Potosi, Mexico where Zero Liquid Discharge equipment increased the energy use and carbon emissions slightly at 1%, but allows GM to manufacture in that local area using water reuse and conserving the water from non-renewable wells to protect the natural resource for the local community.

W10. Verification

W10.1

(W10.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1d)?
Yes

W10.1a

(W10.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

<table>
<thead>
<tr>
<th>Disclosure module</th>
<th>Data verified</th>
<th>Verification standard</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>W8. Targets</td>
<td>Water withdrawal at GM operations globally using AA1000 standards</td>
<td>AA1000AS</td>
<td>GM contracted with an independent third party to verify water withdrawal at our global operations.</td>
</tr>
<tr>
<td>W8. Targets</td>
<td>Water withdrawal year over year reduction at GM operations globally using AA1000 standards</td>
<td>AA1000AS</td>
<td>GM contracted with an independent third party to verify water withdrawal reduction year over year at our global operations to confirm continuous improvement.</td>
</tr>
</tbody>
</table>

W11. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization’s response. Please note that this field is optional and is not scored.

W11.1

(W11.1) Provide details for the person that has signed off (approved) your CDP water response.
**W11.2**

(W11.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate’s Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

**Submit your response**

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

<table>
<thead>
<tr>
<th>Public or Non-Public Submission</th>
<th>I am submitting to</th>
<th>Are you ready to submit the additional Supply Chain Questions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>Investors, Customers</td>
<td>Yes, submit Supply Chain Questions now</td>
</tr>
</tbody>
</table>

Please confirm below

I have read and accept the applicable Terms