

Marathon Petroleum

2024 CDP Corporate Questionnaire 2024

Word version

Important: this export excludes unanswered questions

This document is an export of your organization's CDP questionnaire response. It contains all data points for questions that are answered or in progress. There may be questions or data points that you have been requested to provide, which are missing from this document because they are currently unanswered. Please note that it is your responsibility to verify that your questionnaire response is complete prior to submission. CDP will not be liable for any failure to do so.

[Terms of disclosure for corporate questionnaire 2024 - CDP](#)

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C1. Introduction

(1.1) In which language are you submitting your response?

Select from:

☒ English

(1.2) Select the currency used for all financial information disclosed throughout your response.

Select from:

☒ USD

(1.3) Provide an overview and introduction to your organization.

(1.3.2) Organization type

Select from:

☒ Publicly traded organization

(1.3.3) Description of organization

MPC is a leading, integrated, downstream energy company headquartered in Findlay, Ohio. The company operates one of the nation's largest refining systems, with a processing capacity of approximately 3 million barrels per day across 13 refineries in 12 states. Our growing renewable fuels portfolio includes an ethanol biofuel joint venture in the Midwest, a renewable fuels production facility in North Dakota, a joint venture renewable fuels production facility with Neste in California, a renewable feedstock processing facility in Nebraska and a renewable feedstock aggregation facility in Ohio. MPC's marketing system includes branded locations across the United States, including Marathon brand retail outlets. MPC also owns the general partner and majority limited partner interest in MPLX LP, a midstream energy company that owns and operates natural gas gathering, processing, and fractionation assets, as well as natural gas, natural gas liquids, crude oil and light product transportation and logistics infrastructure. Please see MPC's latest Annual Report on Form 10-K and latest Perspectives on Climate-Related Scenarios Report, available at <https://www.marathonpetroleum.com/Sustainability/Reports-and-Policies/>, for MPC's most current climate-related reporting information.
[Fixed row]

(1.4) State the end date of the year for which you are reporting data. For emissions data, indicate whether you will be providing emissions data for past reporting years.

	End date of reporting year	Alignment of this reporting period with your financial reporting period	Indicate if you are providing emissions data for past reporting years
	12/31/2023	Select from: ☒ Yes	Select from: ☒ No

[Fixed row]

(1.4.1) What is your organization's annual revenue for the reporting period?

150307000000

(1.5) Provide details on your reporting boundary.

(1.5.1) Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?

Select from:

☒ No

(1.5.2) How does your reporting boundary differ to that used in your financial statement?

MPC reports its Scope 1 & 2 GHG emissions on an operational control basis. This is different from the consolidated financial reporting boundary used in our financial reporting because, for example, a joint venture we do not have operational control of would not be included in our operational control GHG inventory. Note that this does not result in significant exclusions from our inventory as the large majority of our Scope 1 & 2 GHG emissions come from our petroleum refineries which are all under MPC operational control. We use this methodology because we generally have more ability to influence actions that can affect the Scope 1 & 2 GHG emissions of an asset if we have full operational control. Additionally, this methodology generally aligns with our regulatory GHG reporting for Scope 1 emissions. MPC estimates and reports the Scope 3 GHG emissions that would result from 1) Category 1 - the upstream emissions from the production of products purchased and 2) Category 11 - the use of its refining products, which are aligned with the purchased crude oil and other charge and blendstocks and refined product yields reported in MPC's annual Form 10-K, respectively. This is the same basis as our financial reporting.

[Fixed row]

(1.6) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ No

ISIN code - equity

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ No

CUSIP number

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ No

Ticker symbol

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ Yes

(1.6.2) Provide your unique identifier

MPC

SEDOL code

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ No

LEI number

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ No

D-U-N-S number

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ No

Other unique identifier

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ No

Ticker symbol

(1.6.1) Does your organization use this unique identifier?

Select from:

☒ Yes

(1.6.2) Provide your unique identifier

(1.7) Select the countries/areas in which you operate.

Select all that apply
☒ United States of America

(1.8) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
	Select from: ☒ Yes, for some facilities	All refinery locations

[Fixed row]

(1.8.1) Please provide all available geolocation data for your facilities.

Row 1

(1.8.1.1) Identifier

El Paso Refinery

(1.8.1.2) Latitude

31.77

(1.8.1.3) Longitude

-106.42

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 3

(1.8.1.1) Identifier

Garyville Refinery

(1.8.1.2) Latitude

30.07

(1.8.1.3) Longitude

-90.6

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 4

(1.8.1.1) Identifier

Los Angeles Refinery

(1.8.1.2) Latitude

33.82

(1.8.1.3) Longitude

-118.25

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 5

(1.8.1.1) Identifier

Detroit Refinery

(1.8.1.2) Latitude

42.29

(1.8.1.3) Longitude

-83.16

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 6

(1.8.1.1) Identifier

St. Paul Park Refinery

(1.8.1.2) Latitude

44.85

(1.8.1.3) Longitude

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 7

(1.8.1.1) Identifier

Kenai Refinery

(1.8.1.2) Latitude

60.68

(1.8.1.3) Longitude

-151.37

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 8

(1.8.1.1) Identifier

Salt Lake City Refinery

(1.8.1.2) Latitude

40.79

(1.8.1.3) Longitude

-111.91

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 9

(1.8.1.1) Identifier

Dickinson Renewable Fuel Facility

(1.8.1.2) Latitude

47.09

(1.8.1.3) Longitude

-102.96

(1.8.1.4) Comment

This facility was converted from a petroleum refinery to a renewable fuel facility.

Row 10

(1.8.1.1) Identifier

Anacortes Refinery

(1.8.1.2) Latitude

48.49

(1.8.1.3) Longitude

-122.57

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 11

(1.8.1.1) Identifier

Galveston Bay Refinery

(1.8.1.2) Latitude

29.38

(1.8.1.3) Longitude

-94.94

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 12

(1.8.1.1) Identifier

Robinson Refinery

(1.8.1.2) Latitude

39.0

(1.8.1.3) Longitude

-87.73

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 13

(1.8.1.1) Identifier

Mandan Refinery

(1.8.1.2) Latitude

46.85

(1.8.1.3) Longitude

-100.89

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 14

(1.8.1.1) Identifier

Catlettsburg Refinery

(1.8.1.2) Latitude

38.38

(1.8.1.3) Longitude

-82.61

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 15

(1.8.1.1) Identifier

Martinez Refinery

(1.8.1.2) Latitude

38.0

(1.8.1.3) Longitude

-122.0

(1.8.1.4) Comment

This facility was indefinitely idled in mid-2020 and has been converted to a renewable fuel facility

Row 16

(1.8.1.1) Identifier

Canton Refinery

(1.8.1.2) Latitude

40.78

(1.8.1.3) Longitude

-81.43

(1.8.1.4) Comment

Data available for all refinery and renewable fuel facilities.

Row 17

(1.8.1.1) Identifier

Gallup Refinery

(1.8.1.2) Latitude

35.5

(1.8.1.3) Longitude

-108.43

(1.8.1.4) Comment

This facility was indefinitely idled in mid-2020.

[Add row]

(1.19) In which part of the oil and gas value chain does your organization operate?

Oil and gas value chain

☒ Downstream

☒ Midstream

Other divisions

☒ Biofuels

☒ Carbon capture and storage/utilization

(1.24) Has your organization mapped its value chain?

(1.24.1) Value chain mapped

Select from:

☒ Yes, we have mapped or are currently in the process of mapping our value chain

(1.24.2) Value chain stages covered in mapping

Select all that apply

☒ Upstream value chain

☒ Downstream value chain

(1.24.3) Highest supplier tier mapped

Select from:

☒ Tier 1 suppliers

(1.24.4) Highest supplier tier known but not mapped

Select from:

☒ Tier 2 suppliers

(1.24.7) Description of mapping process and coverage

Depending on the component of the business, we use various tools to collect data for our value chain mapping such as SAP and Right Angle related software solutions along with internally built applications. The highest supplier tier mapped and known includes tier 1 suppliers. However, in regards to additional tier 2, 3, or 4 suppliers, these are not fully known or mapped across our full value chain and would be a partial representation. Examples of the type of data we track include, but are not limited to, supplier country of origin, bill of lading, etc.

[Fixed row]

C2. Identification, assessment, and management of dependencies, impacts, risks, and opportunities

(2.1) How does your organization define short-, medium-, and long-term time horizons in relation to the identification, assessment, and management of your environmental dependencies, impacts, risks, and opportunities?

Short-term

(2.1.1) From (years)

0

(2.1.3) To (years)

1

(2.1.4) How this time horizon is linked to strategic and/or financial planning

This is generally aligned with short-term or near-term as mentioned in our annual financial reporting, Form 10-K.

Medium-term

(2.1.1) From (years)

1

(2.1.3) To (years)

10

(2.1.4) How this time horizon is linked to strategic and/or financial planning

This medium-term reference is used for CDP disclosure purposes and could encompass activities such as operations and project planning. MPC retained a third party to assess its refining asset competitiveness using the World Oil Refining Logistics and Demand (WORLD) model in a well below 2 degree scenario with

approximately 20 million barrels per day less oil demand in 2030 compared to 2019, which falls into this medium-term reference. Please note that this time horizon is not used in our annual financial reporting, Form 10-K, and also does not align with the timeframe outlined in the SEC’s Enhancement and Standardization of Climate-Related Disclosures for Investors rule, which uses “short-term (i.e., the next 12 months) and in the long-term (i.e., beyond the next 12 months).”

Long-term

(2.1.1) From (years)

10

(2.1.2) Is your long-term time horizon open ended?

Select from:

☒ Yes

(2.1.4) How this time horizon is linked to strategic and/or financial planning

This long-term reference is used for CDP disclosure purposes. Please note that this time horizon is not used in our annual financial reporting, Form 10-K, and also does not align with the timeframe outlined in the SEC’s Enhancement and Standardization of Climate-Related Disclosures for Investors rule, which uses “short-term (i.e., the next 12 months) and in the long-term (i.e., beyond the next 12 months).”

[Fixed row]

(2.2) Does your organization have a process for identifying, assessing, and managing environmental dependencies and/or impacts?

	Process in place	Dependencies and/or impacts evaluated in this process
	Select from: ☒ Yes	Select from: ☒ Both dependencies and impacts

[Fixed row]

(2.2.1) Does your organization have a process for identifying, assessing, and managing environmental risks and/or opportunities?

	Process in place	Risks and/or opportunities evaluated in this process	Is this process informed by the dependencies and/or impacts process?
	Select from: ☒ Yes	Select from: ☒ Both risks and opportunities	Select from: ☒ Yes

[Fixed row]

(2.2.2) Provide details of your organization's process for identifying, assessing, and managing environmental dependencies, impacts, risks, and/or opportunities.

Row 1

(2.2.2.1) Environmental issue

Select all that apply

☒ Climate change

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☒ Risks

☒ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

- ☒ Direct operations
- ☒ Upstream value chain
- ☒ Downstream value chain

(2.2.2.4) Coverage

Select from:

- ☒ Partial

(2.2.2.5) Supplier tiers covered

Select all that apply

- ☒ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

- ☒ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

- ☒ Annually

(2.2.2.9) Time horizons covered

Select all that apply

- ☒ Short-term
- ☒ Medium-term
- ☒ Long-term

(2.2.2.10) Integration of risk management process

Select from:

- ☒ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

- ☒ Site-specific
- ☒ Sub-national
- ☒ National

(2.2.2.12) Tools and methods used

Enterprise Risk Management

- ☒ Enterprise Risk Management

Other

- ☒ Scenario analysis

(2.2.2.13) Risk types and criteria considered

Acute physical

- ☒ Tornado
- ☒ Wildfires
- ☒ Storm (including blizzards, dust, and sandstorms)
- ☒ Other acute physical risk, please specify :**Our assets could be subject to acute physical risks, such as floods, hurricane-force winds, wildfires and winter storms, as well as earth movement in variable, steep and rugged terrain, and terrain with varied or changing subsurface conditions.**
- ☒ Cyclones, hurricanes, typhoons
- ☒ Heavy precipitation (rain, hail, snow/ice)
- ☒ Flood (coastal, fluvial, pluvial, ground water)

Chronic physical

- ☒ Sea level rise
- ☒ Other chronic physical driver, please specify :Our assets could be subject to chronic physical risks, such as sea-level rise or longer term water shortages.

Policy

- ☒ Carbon pricing mechanisms
- ☒ Changes to national legislation
- ☒ Increased difficulty in obtaining operations permits

Market

- ☒ Changing customer behavior
- ☒ Other market, please specify :Continued consumer acceptance and market penetration of electric, hybrid and alternative fuel vehicles may decrease demand for petroleum-based transportation fuels.

Reputation

- ☒ Other reputation, please specify :Increasing attention and demands for action related to climate change and energy transition matters, such as promoting the use of substitutes to fossil fuel products and encouraging the divestment of fossil fuel equities.

Technology

- ☒ Transition to lower emissions technology and products
- ☒ Other technology, please specify :Technology breakthroughs relating to renewable fuels or other fuel alternatives, such as hydrogen or ammonia, or efficiency improvements for internal combustion engines, could reduce demand for traditional transportation fuels.

(2.2.2.14) Partners and stakeholders considered

Select all that apply

- | | |
|---|--|
| ☒ NGOs | ☒ Regulators |
| ☒ Customers | ☒ Local communities |
| ☒ Employees | ☒ Indigenous peoples |
| ☒ Investors | |
| ☒ Suppliers | |

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

- ☒ No

(2.2.2.16) Further details of process

MPC has an Enterprise Risk Management (ERM) program to identify, assess and manage enterprise-level risks and review the effectiveness of risk-mitigation strategies. These risks include ESG, such as climate- and compliance-related risks, as well as those risks described in our most recent Annual Report on Form 10-K (Item 1A). We carefully review, evaluate and manage climate-related risks and opportunities to ensure our ability to adapt and strengthen our resiliency. These include both transitional and physical risks, which we regularly discuss with the Board's Sustainability and Public Policy Committee and executive and senior leadership committees. This assessment is completed on an annual basis. Additionally, MPC published a detailed report of our assessment of risks and opportunities in our annual Perspectives on Climate-Related Scenarios Report which follows recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), including climate-related risks and opportunities the organization has identified over the short, medium and long term. This report includes a review of our business and strategy against International Energy Agency (IEA) scenarios and other 1.5 degree IPCC scenarios vetted by the IEA. These include the IEA's Net-Zero by 2050 Scenario (NZE). This report contains information on climate-related risks and opportunities and is reviewed by the Board's Sustainability and Public Policy Committee. Some examples include: 1) Regulation - We evaluate current regulations as they are an ongoing cost to our company and compliance with current regulations preserves our license to operate. These undergo periodic review often resulting in increasing stringency that must be considered in business planning. We also track and evaluate emerging regulations as part of our business planning process. We evaluate risks, such as higher costs or demand destruction, and opportunities, such as new revenue from carbon pricing programs. 2) Technology - Technology assessments are continually considered and include evaluations of potentially disruptive technologies that could displace some of our products and technological developments that could lead to potential business opportunities. 3) Legal - Management of legal risks is important to preserve both our license to operate and our social license to operate, which are tied to goodwill in the communities where we operate and our reputation in the marketplace. 4) Market - Evaluation of market risks ensures we understand pressure from pricing within our supply chain, availability of feedstock and supplies and product placement. 5) Reputation - We continually evaluate reputational risk as part of our business planning process and is key to preserving our social license to operate. 6) Acute Physical - Many of our facilities are located in areas with a potential for severe weather such as hurricanes. We have spent hundreds of millions of dollars hardening our assets to help protect from extreme weather events. We also have robust emergency response programs in place to ensure quick response if necessary. 7) Chronic Physical - We have evaluated the potential for sea-level rise in coastal areas and annually evaluate water-stress for our assets. To ensure we are a good steward of fresh-water we have established a company-wide goal to reduce our freshwater withdraw intensity.

Row 2

(2.2.2.1) Environmental issue

Select all that apply

☒ Water

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☒ Risks

- ☒ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

- ☒ Direct operations

(2.2.2.4) Coverage

Select from:

- ☒ Full

(2.2.2.7) Type of assessment

Select from:

- ☒ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

- ☒ Annually

(2.2.2.9) Time horizons covered

Select all that apply

- ☒ Short-term
- ☒ Medium-term
- ☒ Long-term

(2.2.2.10) Integration of risk management process

Select from:

- ☒ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

- ☒ Site-specific

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

- ☒ WRI Aqueduct

(2.2.2.13) Risk types and criteria considered

Acute physical

- ☒ Drought
- ☒ Wildfires
- ☒ Heat waves
- ☒ Cyclones, hurricanes, typhoons
- ☒ Flood (coastal, fluvial, pluvial, ground water)
- ☒ Storm (including blizzards, dust, and sandstorms)

Chronic physical

- ☒ Sea level rise
- ☒ Water availability at a basin/catchment level
- ☒ Water stress
- ☒ Water quality at a basin/catchment level

(2.2.2.14) Partners and stakeholders considered

Select all that apply

- ☒ NGOs
- ☒ Customers
- ☒ Employees
- ☒ Regulators
- ☒ Local communities
- ☒ Water utilities at a local level

- ☒ Investors
- ☒ Suppliers

- ☒ Other water users at the basin/catchment level

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

- ☒ No

(2.2.2.16) Further details of process

In 2019 we launched our Focus on Water program and began implementation in early 2020. This initiative, sponsored by our Executive Vice President of Refining, will help our refineries continue to assess their water use, recognize and mitigate water risks, and identify opportunities to reduce water demand. A Focus on Water – Water Management Framework has been established that is applicable to all MPC refining locations. Additionally, in 2020, MPC announced the idling of the Gallup which remained idled in 2023. This facility is in a water stressed area and the idling of this site is expected to have a significant reduction on the volume of water MPC withdraws from the stressed area. Furthermore, our Martinez Renewable Fuels facility, which was converted from a petroleum refinery, is also located in a water-stressed area. As a renewable fuels facility, Martinez will use approximately 1 billion fewer gallons of water per year than when operating as a petroleum refinery. This is expected to reduce future water withdrawals from this location and therefore reduce risk associated with potential future lack of adequate volumes of freshwater in this region. We risk assess direct operations as we have direct control of this stage and robust procedures in place for full direct operations. MPC uses the WRI Aqueduct tool where water volumes are significant to identify our facilities that are in regions with water stress. The analysis/assessment focuses on our refining business segment as it is responsible for 98% of MPC's water withdrawal volumes. Once the refineries are identified, MPC can pay increased attention to those facilities. We have implemented the Operational Excellence Management System (OEMS) that we have formalized over the past 15 years through adherence to the Responsible Care Management System (RCMS). In 2018, we combined our RCMS into a more comprehensive RC14001 management system. RC14001 is built on the globally recognized ISO 14001 environmental management system, and includes health, safety and security requirements. In 2020, we published our new integrated OEMS, which expands on the RC14001 scope and aligns with ISO 9001, incorporating quality and an increased stakeholder and process focus. MPC's HES&S Management Committee, made up of Executive Leadership Team members, oversees implementation of our OEMS. For more information please see <https://www.marathonpetroleum.com/Sustainability/Operating-With-Integrity/Operational-Excellence-Management-System%EF%BB%BF/>.

[Add row]

(2.2.7) Are the interconnections between environmental dependencies, impacts, risks and/or opportunities assessed?

(2.2.7.1) Interconnections between environmental dependencies, impacts, risks and/or opportunities assessed

Select from:

- ☒ Yes

(2.2.7.2) Description of how interconnections are assessed

Our continuous and dynamic Enterprise Risk Management (ERM) process involves a cross-functional review of potential, emerging enterprise-level risks, including risks related to sustainability. Our enterprise risk manager leads the process with quarterly leadership workshops that involve key leaders who are responsible for our sustainability priorities. Our risk analysis includes an examination of the causes and consequences of each enterprise-level risk, as well as the development of strategies to mitigate risks — imminent and potential — and position us to capitalize on new opportunities. Furthermore, we carefully review, evaluate and manage climate-related risks and opportunities to enable us to adapt and strengthen our resiliency. One example of the relationship and interconnectivity of opportunity and risk is our approach to water conservation. Water availability is a concern throughout much of the world, including parts of the U.S. Currently, three of MPC's operating refineries — El Paso, Texas, Salt Lake City, Utah, and Los Angeles, California — plus one renewable fuels facility — Martinez, California — are located in water-stressed regions as defined by the Global Reporting Initiative (GRI) and World Resources Institute assessment tools. To help conserve water in these regions and across all MPC refineries, our refining teams create site-specific plans that use aspects of a nine-element guidance framework. The guidance framework is designed to assess water use, understand and mitigate water risks, and identify opportunities to reduce water use. Every refinery has designated engineers who serve as water coordinators, have established baselines for assessing water use, and maintain robust transparency with site leadership on how water is used through standardized water monitoring and reporting. To highlight the interconnectivity between risks and opportunities, our water framework is provided below: -Water Limits: actual water usage and discharges are tracked against known limits -Accounting: water monitoring programs integrate contractual water volume and cost -Value Chain and Community Engagement: Mutually beneficial opportunities are sought to reduce water demands and costs and reliance on single water sources. -Impacts: Water-related business and compliance issues are tracked, investigated and mitigated. -Risks: Water-related risks are identified and assessed based on impact to the company and community. -Targets and Goals: Water targets and goals are set. -Opportunities: Opportunities are identified and applied to meet water targets and goals and improve performance relative to benchmarking. -Monitoring and Performance: Water withdrawals are measured to benchmark water demands and understand consumption. -Commitment and Engagement: Expectations of water targets and goals are clearly communicated, and resources for successful implementation are assigned.

[Fixed row]

(2.3) Have you identified priority locations across your value chain?

(2.3.1) Identification of priority locations

Select from:

☒ Yes, we have identified priority locations

(2.3.2) Value chain stages where priority locations have been identified

Select all that apply

☒ Direct operations

(2.3.3) Types of priority locations identified

Sensitive locations

- ☒ Areas of limited water availability, flooding, and/or poor quality of water

(2.3.4) Description of process to identify priority locations

Using aqueduct assessment tool (World Resource Institute, Aqueduct Assessment Tool, available at <https://www.wri.org/aqueduct/tools>) to evaluate locations with water stress.

(2.3.5) Will you be disclosing a list/spatial map of priority locations?

Select from:

- ☒ Yes, we will be disclosing the list/geospatial map of priority locations

(2.3.6) Provide a list and/or spatial map of priority locations

*2024-MPC-MPLX-ClimateReport Water Aqueduct.pdf
[Fixed row]*

(2.4) How does your organization define substantive effects on your organization?

Risks

(2.4.1) Type of definition

Select all that apply

- ☒ Qualitative

(2.4.6) Metrics considered in definition

Select all that apply

- ☒ Frequency of effect occurring
- ☒ Time horizon over which the effect occurs
- ☒ Likelihood of effect occurring

(2.4.7) Application of definition

Risks that could have a substantive financial or strategic impact on MPC's business generally include those that could cause our business, financial condition, results of operations and cash flows to be materially and adversely affected, which we disclose in our filings with the Securities and Exchange Commission ("SEC"). Please see Item 1A of MPC's latest Annual Report on Form 10-K filed with the SEC for an explanation of and detail on various risk factors that could have a substantive financial or strategic impact on MPC.

Opportunities

(2.4.1) Type of definition

Select all that apply

☒ Qualitative

(2.4.6) Metrics considered in definition

Select all that apply

☒ Frequency of effect occurring

☒ Time horizon over which the effect occurs

☒ Likelihood of effect occurring

(2.4.7) Application of definition

The evolving energy landscape may produce climate-related opportunities including resource efficiency (i.e., energy efficiency and reduced freshwater use), energy source (i.e. lower-carbon or renewable energy), and products and services, markets and resilience (i.e., continued renewable diesel demand, etc.). Because we are a return on capital business, we conduct rigorous analysis through a lens of strict capital discipline to select the capital projects and investment opportunities we believe will best amplify the impacts of our operational and commercial execution and create value. Consistent with 2023, our 2024 growth capital plan is allocated between traditional and low carbon investments and strategically prioritizes projects at our most cash-generative, competitively advantaged facilities. Additionally, we are making smaller-scale investments in emerging opportunities and early-stage developments where we can leverage our expertise. One example is our joint venture with LF Bioenergy, which is focused on developing and growing a portfolio of dairy-based, low carbon-intensity renewable natural gas (RNG) projects. Additional details of opportunities can be found in MPC's annual Perspectives on Climate-related scenarios report; <https://www.marathonpetroleum.com/Sustainability/Reports-and-Policies/>.

[Add row]

(2.5) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

(2.5.1) Identification and classification of potential water pollutants

Select from:

☒ Yes, we identify and classify our potential water pollutants

(2.5.2) How potential water pollutants are identified and classified

Because all of our operating facilities are within the U.S. the identification and classification of potential water pollutants are highly regulated by the U.S. EPA and delegated state agencies under the Clean Water Act. Where there is a potential for discharge of pollutants each site is required to obtain a Nation Pollution Discharge Elimination System (NPDES) permit. Through this process we are required to identify potential water pollutants and ensure there are safeguards to discharge at concentrations that are protective of human health and the environment.

[Fixed row]

(2.5.1) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Row 1

(2.5.1.1) Water pollutant category

Select from:

☒ Oil

(2.5.1.2) Description of water pollutant and potential impacts

Hydrocarbons are the most common water pollutants associated with our operations. Hydrocarbons can be fully treated in onsite wastewater treatment plant that discharges to surface water or pretreated onsite and discharges to a publicly owned treatment works (POTW). Regardless of where the treated/pretreated water discharges it is required to meet stringent effluent quality standards that are established pursuant the Clean Water Act (CWA) National Pollution Discharge Elimination System (NPDES) permit. Compliance with the permits assures that discharged water is protective of human health and the environment.

(2.5.1.3) Value chain stage

Select all that apply

- ☒ Direct operations

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

- ☒ Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
- ☒ Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

(2.5.1.5) Please explain

Compliance with effluent quality standards: Each of our sites that discharges wastewater and stormwater is required to meet stringent water quality standards that are established by the government pursuant to the Clean Water Act. Measures to prevent spillage, leaching and leakages: There are multiple programs that we have in place to prevent spills that could impact surface and groundwater. The first line of defense is a robust integrity program to ensure that all our pipelines, vessels and tanks are maintained so that no leaks do not occur in the first place. Second we have a Spill Prevention, Control and Countermeasure (SPCC) plan in place for each site to ensure that we have adequate secondary containment in the event that a spill did occur. Community/stakeholder engagement: We have a robust community engagement strategy that includes Community Advisory Panels (CAPs) at each of our refineries and a landowner engagement process for all landowners along our pipeline right-of-ways. These forums provide us with feedback from the communities we operate in on what we are doing well and where we can improve. Emergency preparedness: We have a very robust emergency preparedness program to ensure that we can respond in the event of a release. We conduct both table-top simulations and on-site drills with local, state and federal agencies to ensure that a spill can be contained and properly cleaned up.

[Add row]

C3. Disclosure of risks and opportunities

(3.1) Have you identified any environmental risks which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental risks identified
Climate change	Select from: ☒ Yes, both in direct operations and upstream/downstream value chain
Water	Select from: ☒ Yes, both in direct operations and upstream/downstream value chain

[Fixed row]

(3.1.1) Provide details of the environmental risks identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.1.1.1) Risk identifier

Select from:

☒ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☒ Carbon pricing mechanisms

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☒ Downstream value chain

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☒ United States of America

(3.1.1.9) Organization-specific description of risk

Climate change and GHG emission regulation could affect our operations, energy consumption patterns and regulatory obligations, any of which could adversely impact our results of operations and financial condition. Currently, multiple legislative and regulatory measures to address GHG and other emissions are in various phases of consideration, promulgation or implementation. These include actions to develop international, federal, regional or statewide programs, which could require reductions in our GHG or other emissions, establish a carbon tax and decrease the demand for refined products. Requiring reductions in these emissions could result in increased costs to (i) operate and maintain our facilities, (ii) install new emission controls at our facilities and (iii) administer and manage any emissions programs, including acquiring emission credits or allotments. For example, California and Washington have enacted cap-and-trade programs. Other states are proposing, or have already promulgated, low carbon fuel standards or similar initiatives to reduce emissions from the transportation sector. If we are unable to pass the costs of compliance on to our customers, sufficient credits are unavailable for purchase, we have to pay a significantly higher price for credits, or if we are otherwise unable to meet our compliance obligation, our financial condition and results of operations could be adversely affected. Please see item 1A in our Form 10-K for a comprehensive list of risks.

(3.1.1.11) Primary financial effect of the risk

Select from:

☒ Decreased revenues due to reduced demand for products and services

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☒ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☒ About as likely as not

(3.1.1.14) Magnitude

Select from:

☒ Unknown

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The scope and magnitude of the changes to U.S. climate change strategy under the current and future administrations, however, remain subject to the passage of legislation and interpretation and action of federal and state regulatory bodies; therefore, the impact to our industry and operations due to GHG regulation is unknown at this time.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☒ No

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets

☒ Establish organization-wide targets

(3.1.1.27) Cost of response to risk

0

(3.1.1.28) Explanation of cost calculation

We have achieved significant energy savings, GHG reductions and costs savings through our Focus on Energy program. This includes avoiding the equivalent of over 1.5 billion Btu/hour of energy use, which saved over 45 million in 2023. The cost of response to risk is thus listed as zero because the response helps reduce cost in the form of decreased energy consumption.

(3.1.1.29) Description of response

As an example of a response to a potential carbon tax, is MPC's establishment of an organization-wide target. In 2020, we adopted a companywide manufacturing Scope 1 and 2 GHG emissions intensity reduction target to reduce our intensity 30% below 2014 levels by 2030. 2023 marked the ninth year in a row where we reduced Scope 1 and 2 GHG emissions intensity. We are therefore extending this goal to a 38% reduction by 2035. One element of our disciplined approach to achieving GHG reductions is our Focus on Energy program, which has helped us establish industry-leading recognition in energy efficiency. Energy efficiency is one of our key metrics with both environmental and financial benefits. By identifying where energy can be conserved cost effectively, we reduce our operating costs, save money and reduce our environmental footprint. Our FOE program is our holistic approach to improving energy efficiency in our refining organization to drive continuous improvement and reduce GHG emissions. In the past decade, our FOE program helped us avoid the equivalent of several billion Btu/hr of energy use. Through the success of our FOE program, MPC has been recognized by the EPA for our contributions to building an energy efficiency economy, winning the 2024 ENERGY STAR Partner of the Year – Sustained Excellence Award. ENERGY STAR is a voluntary program managed by the U.S. EPA that aims to assist industry in improving energy efficiency and reducing environmental impact. This honor, MPC's fifth consecutive, puts the company in a distinguished group. With FOE programs in place at all 13 of our refineries, we've expanded these efforts to include our renewable facilities. In 2023, key performance indicators were developed for the Martinez Renewable Fuels facility, with plans to duplicate efforts for the Dickinson Renewable Fuels facility. To build upon the success of our refinery-specific FOE program, MPC expanded FOE with programs now in progress at various MPLX facilities.

Water

(3.1.1.1) Risk identifier

Select from:

☒ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☒ Drought

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☒ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☒ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☒ Brazos River

(3.1.1.9) Organization-specific description of risk

Periodically the Brazos River watershed from which we supply our Galveston Bay Refinery in Texas City, Texas experiences drought and water shortages. Water shortages have not occurred to such an extreme level that we have had our water rights curtailed, however, in 2015 and 2016 water levels within the basin came close. Since then we have implemented measures to find alternative water supply. For example, sourcing municipal wastewater effluent rather than fresh surface water. We have also implemented strategies to reduce water usage at the site conserving water volumes for other users within the Brazos River basin.

(3.1.1.11) Primary financial effect of the risk

Select from:

☒ Closure of operations

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☒ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☒ About as likely as not

(3.1.1.14) Magnitude

Select from:

☒ Unknown

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The effect has not been quantified financially, however there is no anticipated effect of the risk at this time on financial statements at this time as alternate water sources and water conservation efforts have successfully been implemented.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☒ No

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☒ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.27) Cost of response to risk

0

(3.1.1.28) Explanation of cost calculation

There is no cost of response as there is no cost associated with the water conservation strategies, these are actually reducing operating costs. The cost of response to risk is thus listed as zero because the response helps reduce cost in the form of decreased water consumption.

(3.1.1.29) Description of response

Since the last drought period we have implemented measures to find alternative water supplies. For example, we are also sourcing municipal wastewater effluent rather than fresh surface water. We have also implemented strategies to reduce water usage at the site conserving water volumes for other users within the Brazos River basin. For example, we completed a project to increase the capacity of their reverse osmosis system, allowing more water to be reused. Approximately 68 million gallons of freshwater were saved by diverting more reverse osmosis reject water for reuse. The savings offset the cost of the project.

[Add row]

(3.2) Within each river basin, how many facilities are exposed to substantive effects of water-related risks, and what percentage of your total number of facilities does this represent?

Row 1

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :Upper Puerco

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 1-25%

(3.2.9) % organization's global oil and gas production volume that could be affected by these facilities

Select from:

☒ Less than 1%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ Less than 1%

(3.2.11) Please explain

A facilities throughput will generally correlate to a percentage of the revenue from the facility. Adequate supply of water is vital to refining, which uses water for steam, process cooling and other process uses. The WRI Aqueduct tool identified the Gallup refinery as being in a stressed area. On August 3, 2020, MPC announced that this facility would be indefinitely idled. This facility remained idled in 2023. This is expected to reduce future water withdrawals from this location and therefore reduce risk associated with potential future lack of adequate volumes of freshwater in this region.

Row 2

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :San Joaquin Delta and/or Suisun Bay

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ Less than 1%

(3.2.9) % organization's global oil and gas production volume that could be affected by these facilities

Select from:

☒ Less than 1%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ Less than 1%

(3.2.11) Please explain

A facilities throughput will generally correlate to a percentage of the revenue from the facility. Our Martinez Renewable Fuels facility was not fully operational yet in 2023 and throughput was less than 1% of total throughput for the company and therefore correlated to less than 1% of the revenue. Adequate supply of water is vital to refining, which uses water for steam, process cooling and other process uses. Our Martinez Renewable Fuels facility, which was converted from a petroleum refinery, is located in a water-stressed area. As a renewable fuels facility, Martinez will use approximately 1 billion fewer gallons of water per year than when operating as a petroleum refinery. This is expected to reduce future water withdrawals from this location and therefore reduce risk associated with potential future lack of adequate volumes of freshwater in this region.

Row 3

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :Los Angeles Basin

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 1-25%

(3.2.9) % organization's global oil and gas production volume that could be affected by these facilities

Select from:

☒ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ 1-10%

(3.2.11) Please explain

Adequate supply of water is vital to refining, which uses water for steam, process cooling and other process uses. The Los Angeles refinery is in a water stressed area. In 2019, we launched our Focus on Water program and began implementation in early 2020. A Focus on Water – Water Management Framework has been established that is applicable to all MPC refining locations. We also purchase recycled and treated wastewater at the Los Angeles refinery.

Row 4

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :Rio Grande- Bravo

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 1-25%

(3.2.9) % organization's global oil and gas production volume that could be affected by these facilities

Select from:

☒ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ 1-10%

(3.2.11) Please explain

Adequate supply of water is vital to refining, which uses water for steam, process cooling and other process uses. The El Paso refinery is in a water stressed area. In 2019, we launched our Focus on Water program and began implementation in early 2020. Some areas of focus and key performance indicators (KPIs) for the program are: - Percentage of steam condensate recovered - Percentage of water demand from recycled and reused water - Number of cooling tower cycles per tower

Row 5

(3.2.1) Country/Area & River basin

United States of America

☒ Other, please specify :Great Basin

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☒ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☒ 1-25%

(3.2.9) % organization's global oil and gas production volume that could be affected by these facilities

Select from:

☒ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☒ 1-10%

(3.2.11) Please explain

Adequate supply of water is vital to refining, which uses water for steam, process cooling and other process uses. The Salt Lake refinery is in a water stressed area. In 2019, we launched our Focus on Water program and began implementation in early 2020. Some areas of focus and key performance indicators (KPIs) for the program are: - Percentage of steam condensate recovered - Percentage of water demand from recycled and reused water - Number of cooling tower cycles per tower
[Add row]

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

	Water-related regulatory violations	Comment
	Select from: ☒ No	Violations did not result in any fines, enforcement orders, or other penalties.

[Fixed row]

(3.5) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Select from:

☒ Yes

(3.5.1) Select the carbon pricing regulation(s) which impact your operations.

Select all that apply

☒ California CaT - ETS

(3.5.2) Provide details of each Emissions Trading Scheme (ETS) your organization is regulated by.

California CaT - ETS

(3.5.2.1) % of Scope 1 emissions covered by the ETS

19

(3.5.2.2) % of Scope 2 emissions covered by the ETS

0

(3.5.2.3) Period start date

01/01/2023

(3.5.2.4) Period end date

12/31/2023

(3.5.2.7) Verified Scope 1 emissions in metric tons CO2e

6300000

(3.5.2.8) Verified Scope 2 emissions in metric tons CO2e

0

(3.5.2.9) Details of ownership

Select from:

☒ Facilities we own and operate

(3.5.2.10) Comment

Verified scope 1 emissions rounded to the nearest 0.1 million. Allowance allocations and purchases cannot be disclosed due to confidentiality requirements imposed by the California CaT - ETS.

[Fixed row]

(3.5.4) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

We support market-based approaches to reduce emissions, and are currently participating in several programs based on this approach. For example, the California Low Carbon Fuel Standard (LCFS) program established a goal to reduce the carbon intensity of the motor fuel sold in California 20% through 2030. Fuel producers and marketers can comply by marketing fuels that have a lower carbon intensity or by purchasing credits. In response to this incentive, over the past four years, over 1 billion has been invested to convert two of our petroleum refineries to produce renewable diesel. These renewable fuel volumes will generate LCFS credits. In 2020, we completed the conversion of our Dickinson, North Dakota, refinery, which produced nearly 154 million gallons of renewable diesel and other renewable products in 2023. We also formed a 50/50 joint venture with Neste in 2022 to complete the conversion of our Martinez, California, refinery and began producing renewable diesel in the first quarter of 2023. We expect to reach full capacity by the end of 2024. This is an example of a narrow market-based policy that is driving investment in lower carbon-intensity fuels. We believe a program that recognizes and supports continued technology innovation and deployment - such as energy efficiency projects, electrification, regenerative farming, renewable energy use, carbon capture, etc. - that lower the carbon emissions from both the use and production of fuels can provide long-term opportunities to achieve more carbon reductions from the transportation sector.

(3.6) Have you identified any environmental opportunities which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental opportunities identified
Climate change	Select from:

	Environmental opportunities identified
	☒ Yes, we have identified opportunities, and some/all are being realized
Water	<i>Select from:</i> ☒ Yes, we have identified opportunities, and some/all are being realized

[Fixed row]

(3.6.1) Provide details of the environmental opportunities identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☒ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☒ Other products and services opportunity, please specify :Development and/or expansion of lower emission goods and services

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☒ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☒ United States of America

(3.6.1.8) Organization specific description

Worldwide and domestic demand for biofuels in the transportation fleet is expected to increase through 2030, including in the International Energy Agency's Stated Energy Policies, Sustainable Development, and Net Zero Emissions by 2050 scenarios. To help strengthen the competitive position of our assets, MPC converted two of its less competitive refineries to renewable fuel facilities. Our Dickinson, North Dakota, facility became fully operational in 2021 with a production capacity of 184 million gallons/year. Through a joint venture (JV) with Neste we completed the conversion of our Martinez, California, refinery and began producing in 2023. MPC brings experience in renewable diesel facility conversion, large capital project execution, and operating expertise in the California market while Neste brings knowledge in sustainable feedstock sourcing and renewable liquid fuels production. With this expertise, we expect to reach a capacity of 730 million gallons/year by the end of 2024. This facility helps advance the project objectives of delivering lower carbon intensity fuels to support California's climate goals. Furthermore, we enhanced the competitiveness of our renewable division by extending further into the renewables value chain by converting our Cincinnati facility into a renewable feedstock aggregation facility, purchasing our Beatrice feedstock pretreatment facility, and entering into a JV to construct the first dedicated soybean processing plant in North Dakota.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☒ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☒ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☒ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☒ Medium-high

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Although we generally anticipate increased revenues resulting from increased demand for products and services, estimating the impact to the effect of the opportunity on our financial position, financial performance and cash flows would have a level of uncertainty due to risks. As a result, the effect has not been quantified financially. One example of a risk would be the cost to comply with renewable fuel standards and low carbon fuels standards. Pursuant to the Energy Policy Act of 2005 and the EISA, Congress established a Renewable Fuel Standard ("RFS") program that requires annual volumes of renewable fuel be blended into domestic transportation fuel. The statutory volumes apply through calendar year 2022. After calendar year 2022, the statute gives EPA the authority to set the annual volumes. EPA has promulgated annual volumes for 2023-2025 that increase the volume of renewable fuel that must be blended year over year. In addition to the federal Renewable Fuel Standards, certain states have, or are considering, promulgation of state renewable or low carbon fuel standards. For example, California began implementing its LCFS in January 2011. In September 2015, the CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. The LCFS was amended again in 2018 with the current version targeting a 20 percent reduction in fuel carbon intensity from a 2010 baseline by 2030. CARB has issued a proposed rule expected to be finalized by the end of 2024 that would increase the stringency of the carbon intensity targets for 2025 and beyond. We incur costs to comply with LCFS programs, and these costs may increase if the cost of LCFS credits increases. In sum, the RFS has required, and may in the future continue to require, additional capital expenditures or expenses by us to accommodate increased renewable fuels use.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☒ Yes

(3.6.1.19) Anticipated financial effect figure in the medium-term - minimum (currency)

502000000

(3.6.1.20) Anticipated financial effect figure in the medium-term - maximum (currency)

9300000000

(3.6.1.23) Explanation of financial effect figures

For simplicity and consistency, the minimum to maximum range above are obtained from MPC's Sustainability Accounting Standards Board (SASB) table, EM-RM-410.a2. The total addressable market for advanced biofuels and associated infrastructure was estimated to be 9.3 billion; MPC's share of the market was identified to be 5.4%, or about 502 million. These estimates were arrived at by quantifying the total value of advanced biofuel, biomass-based diesel, and cellulosic biofuel Renewable Identification Numbers generated in 2023 under the EPA's Renewable Fuel Standard for all industry and for MPC. Additional detail can be found in MPC's Sustainability Report, available at <https://www.marathonpetroleum.com/Sustainability/Reports-and-Policies/>.

(3.6.1.24) Cost to realize opportunity

1000000000

(3.6.1.25) Explanation of cost calculation

The cost to realize opportunity above is representative of the project costs for MPC's two major renewable fuels projects. Over the past four years, over 1 billion has been invested to convert two of our petroleum refineries to produce renewable diesel. The first was the conversion of the Dickinson petroleum refinery to a renewable fuels facility. The second is the ongoing conversion of the Martinez petroleum refinery to a renewable fuels facility which MPC entered into a 50/50 joint venture. This is expected to reach full capacity by the end of 2024.

(3.6.1.26) Strategy to realize opportunity

The primary mechanism MPC has utilized to realize the opportunity of increased demand for lower-carbon renewable transportation fuels is the conversion of petroleum refineries to renewable fuel facilities. Much of this increased demand has occurred in California, largely due to its Low Carbon Fuel Standard, which is designed with a stated goal of decreasing the carbon intensity of California's transportation fuels and driving production of a broader range of low-carbon and renewable alternative fuels. On March 2, 2021, MPC announced that its Board of Directors approved plans to convert its Martinez, California, refinery into a renewable fuels manufacturing facility, also noting that converting the Martinez facility from refining petroleum to manufacturing renewable fuels signals MPC's strong commitment to producing a substantial level of lower carbon-intensity fuels in California. Additional details on climate-related opportunities can be found in MPC's annual Perspectives on Climate-related scenarios report; <https://www.marathonpetroleum.com/Sustainability/Reports-and-Policies/>.

Water

(3.6.1.1) Opportunity identifier

Select from:

☒ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☒ Reduced water usage and consumption

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

- ☒ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

- ☒ United States of America

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

- ☒ Brazos River
- ☒ Other, please specify :Los Angeles Basin, San Joaquin Delta and/or Suisun Bay, Rio Grande - Bravo, Great Basin

(3.6.1.8) Organization specific description

In 2019 we launched our Focus on Water program and began implementation in early 2020. The Focus on Water program supports our commitment to reduce freshwater withdrawals and incorporates reporting guidelines of the international Task Force on Climate-related Financial Disclosures and the GRI, which address several water-related metrics such as water intensity. A Focus on Water – Water Management Framework has been established that is applicable to all MPC refining locations. Additionally, we regularly participate in industry trade groups where we can work with our peers to develop and share best practices.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

- ☒ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

- ☒ Medium-term
- ☒ The opportunity has already had a substantive effect on our organization in the reporting year

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☒ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☒ Medium-low

(3.6.1.13) Effect of the opportunity on the financial position, financial performance and cash flows of the organization in the reporting period

Water represents a very small portion of the operating costs for a refinery.

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Most water efficiency efforts are to increase efficiency of water use which have low to no cost to implement and represent only cost savings. Spread across all refineries in the system with expected savings of over 500 million gallons of water per year, this is estimated to have a low-medium impact. A financial impact figure for this project is not readily available.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☒ No

(3.6.1.24) Cost to realize opportunity

0

(3.6.1.25) Explanation of cost calculation

Implementation was from operational changes to the facility and did not require cost to implement beyond routine maintenance efforts.

(3.6.1.26) Strategy to realize opportunity

There are several key performance indicators (KPIs) being developed for facilities under the program, which include: - Percentage of steam condensate recovered - Percentage of water demand from recycled and reused water - Number of cooling tower cycles per tower For example, The El Paso refinery reduced freshwater usage by over 25 million gallons by focusing on water management. This was achieved through modifications to their tank hydrostatic testing procedures and increasing cycles of concentration in their water treatment system. At our Los Angeles Refinery, several water savings initiatives were implemented as a part of our Focus on Water program: 99 million gallons of fresh water saved by improving level controls on cooling tower basins 328 million gallons of fresh water saved by increasing cooling water iron specification 72 million gallons of fresh water saved by increasing cycles of concentration for low-pressure waste heat steam generator Additional detail on water savings topics can be found in MPC's annual Perspectives on Climate-related scenarios report and Sustainability report (available at <https://www.marathonpetroleum.com/Sustainability/Reports-and-Policies/>).

[Add row]

(3.6.2) Provide the amount and proportion of your financial metrics in the reporting year that are aligned with the substantive effects of environmental opportunities.

Climate change

(3.6.2.1) Financial metric

Select from:

☒ CAPEX

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

491000000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☒ 31-40%

(3.6.2.4) Explanation of financial figures

Our investments strengthen the competitive position of our assets, increase our resilience and allocate growth capital between traditional and low-carbon investments. MPC's refining and marketing (R&M) capital allocation can be broken down into sustaining capital and growth capital. Sustaining capital underpins our commitment to safety and environmental performance and represented approximately 24% of MPC's R&M 2023 capital spend. The remainder was growth capital,

which we invest in a disciplined fashion in areas that we believe will enhance our competitiveness. Of MPC's R&M 2023 growth capital, approximately 49% was attributed to low-carbon projects which, for example, can help lower GHG emissions at our refineries or represent investments in renewable fuels. The remainder of growth capital was aimed at projects that enhance margin and reduce cost and will primarily occur at our large, competitively advantaged facilities to help position MPC well into the future. For additional details, please see MPC's 4th quarter 2023 earnings presentation on our website (<https://www.marathonpetroleum.com/>).

[Add row]

C4. Governance

(4.1) Does your organization have a board of directors or an equivalent governing body?

(4.1.1) Board of directors or equivalent governing body

Select from:

☒ Yes

(4.1.2) Frequency with which the board or equivalent meets

Select from:

☒ Quarterly

(4.1.3) Types of directors your board or equivalent is comprised of

Select all that apply

☒ Executive directors or equivalent

☒ Independent non-executive directors or equivalent

(4.1.4) Board diversity and inclusion policy

Select from:

☒ Yes, and it is publicly available

(4.1.5) Briefly describe what the policy covers

Our directors bring a range of backgrounds, critical skills, perspectives and expertise to our Board. Our Corporate Governance Principles emphasize the importance of diversity of director backgrounds and experiences and expressly affirm the Board's commitment to actively seek women candidates and candidates of diverse ethnic and racial backgrounds as it recruits the most qualified directors with the requisite experience and skills. Since 2018, the Board has appointed eight independent directors. Of these, five have been women, including three women of diverse ethnic/racial backgrounds. For more details please see MPC's Corporate Governance Principles (attached and available at https://www.marathonpetroleum.com/content/documents/Investors/Corporate_Governance/Corporate_Governance_Principles_effective_May_11_2024.pdf).

(4.1.6) Attach the policy (optional)

Corporate_Governance_Principles_effective_May_11_2024.pdf
[Fixed row]

(4.1.1) Is there board-level oversight of environmental issues within your organization?

	Board-level oversight of this environmental issue
Climate change	Select from: ☒ Yes
Water	Select from: ☒ Yes

[Fixed row]

(4.1.2) Identify the positions (do not include any names) of the individuals or committees on the board with accountability for environmental issues and provide details of the board’s oversight of environmental issues.

Climate change

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply
☒ Board-level committee

(4.1.2.2) Positions’ accountability for this environmental issue is outlined in policies applicable to the board

Select from:
☒ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

- ☒ Board mandate
- ☒ Other policy applicable to the board, please specify :Sustainability and Public Policy Committee Charter

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

- ☒ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

- ☒ Approving corporate policies and/or commitments
- ☒ Monitoring compliance with corporate policies and/or commitments
- ☒ Overseeing the setting of corporate targets

(4.1.2.7) Please explain

At MPC, our impacts, risks and opportunities related to ESG topics, including climate-related issues, are identified and managed by company leadership with the oversight of our Board of Directors. Our directors bring a range of backgrounds, critical skills, perspectives and expertise to our Board. For more information on the individual qualifications of each of our Directors, please see our latest Proxy Statement available at <https://www.marathonpetroleum.com/Investors/Annual-Report-Proxy-Statement/>. The Board's committees, including the Sustainability and Public Policy Committee, are responsible for specific areas of oversight and policy decision-making. Specific responsibilities are set forth in our Corporate Governance Principles and each committee's charter. Available at <https://www.marathonpetroleum.com/Investors/Corporate-Governance/>; and <https://www.marathonpetroleum.com/About/Board-of-Directors/>. The Sustainability and Public Policy Committee's primary responsibilities are: - Oversees risks and opportunities associated with sustainability, ESG and public policy matters - Reviews our sustainability and climate reports and other key sustainability disclosures - Oversees establishment of our sustainability targets - Oversees governance framework and budgets for our political contributions and lobbying expenditures - Oversees stakeholder engagement related to sustainability, ESG and public policy matters Examples of government mechanisms of the Board of climate-related matters would be the approval of MPC's scope 1 & 2 GHG intensity target in early 2020 and approval of MPC's absolute scope 3 category 11 GHG reduction target in early 2022. Specifically, we have a target of 30% reduction of Scope 1 and 2 GHG emissions intensity by 2030 from 2014 levels, and we are on track to meet this goal ahead of schedule. 2023 marked the ninth year in a row where we reduced Scope 1 and 2 GHG emissions intensity. The Board level committee has monitored this progress and approved extending the aforementioned goal to a 38% reduction by 2035. The Audit Committee has oversight of and responsibility for reviewing legislative and regulatory issues affecting ESG and climate risk disclosures within the financial reporting framework and monitors developments in integrated reporting for alignment with financial reporting.

Water

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

- ☒ Board-level committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

- ☒ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

- ☒ Board mandate
- ☒ Other policy applicable to the board, please specify :Sustainability and Public Policy Committee Charter

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

- ☒ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

- ☒ Approving corporate policies and/or commitments
- ☒ Monitoring compliance with corporate policies and/or commitments
- ☒ Overseeing the setting of corporate targets

(4.1.2.7) Please explain

The Board of Directors Sustainability and Public Policy Committee has oversight duties relating to Environmental, Social and Governance (ESG) such as water-related issues. For more information on the Board, its committees, including committee charters, please see <https://www.marathonpetroleum.com/About/Board-of->

Directors/. For example, the committee oversaw the establishment of a companywide target to reduce freshwater withdrawal intensity 20% by 2030 from 2016 levels. To date, we have achieved an 18% reduction in intensity below 2016 levels. Water-related issues are integrated into our sustainability strategy that is discussed with the board during quarterly meetings of the Sustainability and Public Policy Committee.
[Fixed row]

(4.2) Does your organization's board have competency on environmental issues?

Climate change

(4.2.1) Board-level competency on this environmental issue

Select from:

☒ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

☒ Consulting regularly with an internal, permanent, subject-expert working group

☒ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience

☒ Experience in an academic role focused on environmental issues

☒ Experience in an organization that is exposed to environmental-scrutiny and is going through a sustainability transition

Water

(4.2.1) Board-level competency on this environmental issue

Select from:

☒ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

- ☒ Consulting regularly with an internal, permanent, subject-expert working group
- ☒ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience

- ☒ Experience in an academic role focused on environmental issues
- ☒ Experience in an organization that is exposed to environmental-scrutiny and is going through a sustainability transition

[Fixed row]

(4.3) Is there management-level responsibility for environmental issues within your organization?

	Management-level responsibility for this environmental issue
Climate change	Select from: ☒ Yes
Water	Select from: ☒ Yes

[Fixed row]

(4.3.1) Provide the highest senior management-level positions or committees with responsibility for environmental issues (do not include the names of individuals).

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Committee

- ☒ Safety, Health, Environment and Quality committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

- ☒ Assessing environmental dependencies, impacts, risks, and opportunities
- ☒ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

- ☒ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

- ☒ Quarterly

(4.3.1.6) Please explain

Meets quarterly with key health, environmental, safety and security (HES&S) personnel and leadership throughout our company to evaluate performance and discuss strategic HES&S, corporate citizenship and public policy issues. This interactive forum ensures executive leadership remains informed and up to date on HES&S and corporate citizenship matters affecting the company, including climate-related matters, and provides a platform to discuss these issues with HES&S leadership.

Water

(4.3.1.1) Position of individual or committee with responsibility

Committee

- ☒ Safety, Health, Environment and Quality committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

- ☒ Assessing environmental dependencies, impacts, risks, and opportunities
- ☒ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

- ☒ Reports to the Chief Executive Officer (CEO)

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

- ☒ Quarterly

(4.3.1.6) Please explain

Water risks and opportunities are discussed with the Sustainability Committee of the Board quarterly as part of Sustainability and Task Force on Climate-Related Financial Disclosures (TCFD) reporting. The HES&S Management Committee is chaired by the Senior Vice President of Health, Environmental, Safety, Security and Product Quality and is made up of MPC's CEO and other members of the Executive Leadership Team.

[Add row]

(4.5) Do you provide monetary incentives for the management of environmental issues, including the attainment of targets?

Climate change

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☒ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

5

(4.5.3) Please explain

MPC has established a companywide goal to reduce its greenhouse gas (GHG) emissions per barrel of oil equivalent (BOE) processed to 30% below 2014 levels by 2030. The company has linked achievement of the goal to its Annual Cash Bonus Program, which is part of the executive compensation program. MPC's 2023 Annual Cash Bonus program has a sustainability metric component that is weighted at 20%. A subset of the sustainability metric is the Greenhouse Gas Intensity category, weighted at 5%. This GHG Intensity measures how efficiently we operate our facilities and implement a business plan that promotes a lower carbon-intensive future. Please see page 44 of MPC's 2024 Proxy statement for additional details, available at https://www.marathonpetroleum.com/content/documents/Investors/2024_MPCProxyStatement.pdf

Water

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☒ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

5

(4.5.3) Please explain

MPC's Annual Cash Bonus program has a sustainability metric component that is weighted at 20%. A subset of the sustainability metric is the Designated Environmental Incident (DEI) category, weighted at 5%. DEIs measure environmental performance by tracking certain releases of hazardous substances to air, water or land; permit exceedances, including water permit exceedances; government agency enforcement actions; and proper operation of emission monitoring equipment. Please see page 44 of MPC's 2024 Proxy statement for additional detail, available at https://www.marathonpetroleum.com/content/documents/Investors/2024_MPCProxyStatement.pdf
[Fixed row]

(4.5.1) Provide further details on the monetary incentives provided for the management of environmental issues (do not include the names of individuals).

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☒ Corporate executive team

(4.5.1.2) Incentives

Select all that apply

☒ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☒ Achievement of environmental targets

Emission reduction

☒ Reduction in emissions intensity

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☒ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

The executive team and most employees are incentivized to reduce Scope 1 & 2 GHG emissions intensity. The target is to reduce greenhouse gas (GHG) emissions per barrel of oil equivalent (BOE) processed to 30% below 2014 levels by 2030. Performance against this metric is a component of the Annual Cash Bonus Program, which is part of the executive compensation package. The 2023 Annual Cash Bonus Program had an Environmental, Social, and Governance (ESG) component that

was weighted at 20% and consisted of four individual components each weighted at 5%. The four components were GHG intensity; process safety events score; designated environmental incidents; and diversity, equity, & inclusion. Additional information on this metric can be found in MPC's 2024 Proxy statement available at: https://www.marathonpetroleum.com/content/documents/Investors/2024_MPCProxyStatement.pdf.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

MPC was one of the first U.S. independent downstream energy companies to link GHG intensity reductions to compensation. Specifically, integration of the GHG metric to the Annual Cash Bonus program incentivizes the executive team and eligible employees for executing on MPC strategy. The goals are transparent and measurable, thereby resulting in meaningful reductions. For example, our performance to date, has resulted in real, sustainable emissions reductions. We have reduced our Scope 1 and 2 GHG intensity for the ninth straight year, for a 27% reduction since 2014. As we are on track to reach our existing goal prior to 2030, we are extending the target to a 38% reduction by 2035.

Water

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☒ Corporate executive team

(4.5.1.2) Incentives

Select all that apply

☒ Bonus - % of salary

(4.5.1.3) Performance metrics

Pollution

☒ Improvements in wastewater quality – direct operations

☒ Increase in discharge treatment compliance and meeting regulatory requirements – direct operations

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☒ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

There are threshold, target, and maximum payout values assigned to the achievement of each of the targets. Threshold is rated at 50%, target at 100%, and maximum at 200%. Performance is reviewed quarterly across the organization. Please see page 44 of MPCs 2024 Proxy statement for additional detail, available at https://www.marathonpetroleum.com/content/documents/Investors/2024_MPCProxyStatement.pdf

(4.5.1.6) How the position’s incentives contribute to the achievement of your environmental commitments and/or climate transition plan

The incentives have impacted our organization in a way that the senior employees are encouraged to perform better and to become more involved in our water commitments. Executive compensation includes a target for Designated Environmental Incidents (DEIs) which includes releases to water, water permit compliance and Notices of Violation (NOVs). MPC’s Annual Cash Bonus program has a sustainability metric component that is weighted at 20%. A subset of the sustainability metric is the Designated Environmental Incident (DEI) category, weighted at 5%. DEIs measure environmental performance by tracking certain releases of hazardous substances to air, water or land; permit exceedances, including water permit exceedances; government agency enforcement actions; and proper operation of emission monitoring equipment.
[Add row]

(4.6) Does your organization have an environmental policy that addresses environmental issues?

	Does your organization have any environmental policies?
	Select from: ☒ Yes

[Fixed row]

(4.6.1) Provide details of your environmental policies.

Row 1

(4.6.1.1) Environmental issues covered

Select all that apply

☒ Climate change

(4.6.1.2) Level of coverage

Select from:

☒ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☒ Direct operations

(4.6.1.4) Explain the coverage

We are challenging ourselves to lead in sustainable energy by investing in renewables and emerging technologies and embedding sustainability in our decision-making. We are committed to reducing our carbon footprint, conserving natural resources, and minimizing waste, emissions, and releases throughout our operations.

(4.6.1.5) Environmental policy content

Environmental commitments

☒ Commitment to comply with regulations and mandatory standards

Climate-specific commitments

☒ Other climate-related commitment, please specify :Commitment to reduce our carbon footprint

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply

☒ No, and we do not plan to align in the next two years

(4.6.1.7) Public availability

Select from:

☒ Publicly available

(4.6.1.8) Attach the policy

Health__Environmental__Safety_and_Security_Policy.pdf

Row 2

(4.6.1.1) Environmental issues covered

Select all that apply

☒ Water

(4.6.1.2) Level of coverage

Select from:

☒ Selected facilities, businesses or geographies only

(4.6.1.3) Value chain stages covered

Select all that apply

☒ Direct operations

(4.6.1.4) Explain the coverage

In 2020 we formally adopted a "Focus on Water" policy/program within our refining segment which uses approximately 98% of water company-wide. The policy/program identifies steps that each refinery is required to complete including developing a detailed water balance that will drive future improvement. In the first full year of the program we identified over 570 million gallons of water savings. In 2023, we continued our refinery-wide "Focus on Water" program to further assess water use, understand and mitigate water risks and identify opportunities to reduce water use. Concurrent with the "Focus on Water" program we have a publicly announced a company-wide target to reduce our water withdrawal intensity to 20% below 2016 by 2030. To date we have achieved an 18% reduction in intensity below 2016 levels, which equates to over 3.7 billion gallons of freshwater per year.

(4.6.1.5) Environmental policy content

Environmental commitments

- ☒ Commitment to comply with regulations and mandatory standards

Water-specific commitments

- ☒ Commitment to reduce water withdrawal volumes

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply

- ☒ No, and we do not plan to align in the next two years

(4.6.1.7) Public availability

Select from:

- ☒ Not publicly available

[Add row]

(4.10) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

(4.10.1) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

Select from:

- ☒ Yes

(4.10.2) Collaborative framework or initiative

Select all that apply

- ☒ Other, please specify :The Environmental Partnership, an initiative of the U.S. National Gas and Oil Industry

(4.10.3) Describe your organization's role within each framework or initiative

MPLX participates in The Environmental Partnership, a coalition of nearly 100 oil and natural gas companies committed to continuously improving environmental performance in members' operations across the country. The Environmental Partnership provides a platform for the industry to collaborate with stakeholders and

share best practices and new technologies. Its goals are consistent with the aims of our Focus on Methane program. Specifically, partners commit to the following: -A program to install or retrofit gas-driven pneumatic controllers with lower- or zero- bleed methane emissions devices -A leak detection and repair program for natural gas and oil facilities -A program to reduce emissions from compressors -A program to reduce emissions from pipeline blowdowns and flaring More information on The Environmental Partnership is available at <https://theenvironmentalpartnership.org/>
[Fixed row]

(4.11) In the reporting year, did your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may (positively or negatively) impact the environment?

(4.11.1) External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment

Select all that apply

- ☒ Yes, we engaged directly with policy makers
- ☒ Yes, we engaged indirectly through, and/or provided financial or in-kind support to a trade association or other intermediary organization or individual whose activities could influence policy, law, or regulation

(4.11.2) Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental treaties or policy goals

Select from:

- ☒ No, and we do not plan to have one in the next two years

(4.11.5) Indicate whether your organization is registered on a transparency register

Select from:

- ☒ Yes

(4.11.6) Types of transparency register your organization is registered on

Select all that apply

- ☒ Mandatory government register

(4.11.7) Disclose the transparency registers on which your organization is registered & the relevant ID numbers for your organization

We comply with the federal Lobbying Disclosure Act (LDA) by filing reports of our lobbying activities and expenditures, and MPAC's federal political contributions. LDA reports filed by the company as well as retained lobbying firms may be found on the website of the Clerk of the U.S. House of Representatives or the Secretary of the U.S. Senate. Registrant Name: Marathon Petroleum Company LP Registrant ID: 41800 Senate ID: 400803404-12 House ID: 418000000

(4.11.8) Describe the process your organization has in place to ensure that your external engagement activities are consistent with your environmental commitments and/or transition plan

MPC is committed to conducting climate-related lobbying activities in alignment with the ambition of the Paris Agreement to reduce global GHG emissions and limit global warming to well below 2 degrees Celsius. At MPC, our impacts, risks and opportunities related to ESG topics are identified and managed by company leadership with the oversight of our Board. The Board has four committees, each of which is responsible for specific areas of oversight and policy decision-making, as set forth in our Corporate Governance Principles and each committee's charter. Our executive leadership team has primary responsibility for sustainability strategies and standards. Sustainability is embedded in several cross-functional leadership committees that help ensure our objectives are incorporated into our OEMS standards and sustainability strategies. These are in turn cascaded throughout the organization. These standards and strategies are developed by committees of the executive leadership team and aligned with related procedures and plans at the operational level. Communication and collaboration among the Board, its committees and management are critical to maintaining our aligned direction on sustainability matters. Good governance is our way of ensuring MPC adheres to our mission and is accountable to our shareholders, our customers, our strategic partners and our employees. As an example, our key responsibilities of our Sustainability and Public Policy Committee include: Development of policies and programs regarding sustainability, ESG and Health, Environment, Safety, and Security (HES&S) Oversight or review of climate change and sustainability reporting and targets Oversight of framework for development of public policy positions Oversight of governance framework and budgets for political contributions and lobbying activities Reviews legislative and regulatory developments and stakeholder engagement relating to sustainability, ESG and public policy matters Additional details can be found in MPC's annual Sustainability Report and our Political Engagement Website under the Trade Association and Issue Advocacy sections (<https://www.marathonpetroleum.com/Sustainability/Political-Engagement/>).

[Fixed row]

(4.11.1) On what policies, laws, or regulations that may (positively or negatively) impact the environment has your organization been engaging directly with policy makers in the reporting year?

Row 1

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

Incorporate carbon performance into existing and potential future fuel programs.

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply

☒ Climate change

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Energy and renewables

☒ Alternative fuels

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☒ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☒ United States of America

(4.11.1.6) Your organization's position on the policy, law, or regulation

Select from:

☒ Support with minor exceptions

(4.11.1.7) Details of any exceptions and your organization's proposed alternative approach to the policy, law, or regulation

As part of the Renewable Fuel Standard Set process, we are asking the EPA to prioritize GHG reductions. The RFS should recognize the benefits of certain practices – such as regenerative farming, renewable energy use, carbon capture, etc. – that lower the carbon emissions from both the use and production of fuels. By recognizing these practices, the RFS will better incentivize the production of cleaner-burning fuels and achieve more carbon reductions from the transportation sector.

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☒ Ad-hoc meetings

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

We are committed to conducting climate-related lobbying activities in alignment with the ambition of the Paris Agreement to reduce global GHG emissions and to limit global warming to well below 2 degrees Celsius. MPC evaluates climate-related legislative / regulatory proposals within the totality in which they reside and determines the level of engagement and support, if any, that is appropriate. Recognizing that not all proposed climate-related legislation / regulation reflects sound policy, that proposals may change significantly during the amendment process, and that legislation / regulation may have implications unrelated to climate, MPC takes a thoughtful and deliberate approach to the execution of this commitment. With regard to a price on carbon, we support market-based approaches. An economy-wide price on carbon would be the most effective mechanism to drive emissions reductions at the lowest cost to society. Regarding low carbon fuel programs, we believe programs should be enacted in a manner that provides the most value for stakeholders. Where markets currently exist, such as California's Low Carbon Fuel Standard, we are a major participant. We also support continued government investment in innovation through grant programs and guaranteed low-interest loans that can spur new technological solutions. Finally, we view cap and trade programs as the most inefficient and costly option for actually reducing carbon emissions. The primary ambition of the Paris Agreement is to limit global warming to well below 2 degrees Celsius compared to pre-industrial levels. MPC and MPLX have committed to a goal to reduce our manufacturing (Scope 1 and 2) greenhouse gas emissions intensity 30% below 2014 levels by 2030 – a metric linked to executive pay – and MPLX has a goal to reduce gathering and processing methane emissions intensity 50% below 2016 levels by 2025 and 75% below 2016 levels by 2030. We are focused on continuing to reduce our carbon intensity, improve energy efficiency and make significant investments in renewables. We will continue to work with policy makers as they establish goals aligned with the Paris Agreement to pursue smart, effective regulations that allow us to meet energy demand affordably and sustainably. Please see our Issue advocacy section on our Political Engagement website for recent examples of our Paris-aligned advocacy efforts (<https://www.marathonpetroleum.com/Sustainability/Political-Engagement/>).

(4.11.1.11) Indicate if you have evaluated whether your organization's engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☒ Yes, we have evaluated, and it is aligned

(4.11.1.12) Global environmental treaties or policy goals aligned with your organization's engagement on this policy, law or regulation

Select all that apply

☒ Paris Agreement

[Add row]

(4.11.2) Provide details of your indirect engagement on policy, law, or regulation that may (positively or negatively) impact the environment through trade associations or other intermediary organizations or individuals in the reporting year.

Row 1

(4.11.2.1) Type of indirect engagement

Select from:

☒ Indirect engagement via a trade association

(4.11.2.4) Trade association

North America

☒ American Petroleum Institute

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☒ Climate change

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☒ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☒ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

API supports the ambitions of the Paris Agreement. API's Climate Action Framework (<https://www.api.org/climate>), includes a five-part action plan to 1) accelerate technology and innovation to reduce emissions while meeting growing energy needs; 2) further mitigate emissions from operations to advance additional environmental progress; 3) endorse a carbon price policy by government to drive economywide, market based solutions; 4) advance cleaner fuels to provide lower-carbon choices for consumers; and 5) drive climate reporting to provide consistency and transparency. API's Climate Position and Policy Principles include support for global action that drives GHG emissions reductions. Their Climate-related Reporting Initiative aims to develop more consistent and comparable reporting of key GHG indicators and has resulted in the publication of API Template 2.0 for GHG Reporting, which includes Scope 1 and 2 emissions, GHG mitigation, Scope 1 intensity, targets and reporting, and third-party verification. It is critical that our trade associations are working to help our industry address climate challenges. When our trade associations engage on climate policy, we strive to encourage them to take positions that are not inconsistent with our commitment to sustainability, including lowering carbon intensity of our operations and products, expanding renewable fuels and technologies, and conserving natural resources. As part of this, we expect them to conduct their climate-related lobbying activities in alignment with the ambition of the Paris Agreement to reduce global GHG emissions and limit global warming to well below 2 degrees C. Because we do not control the position of any trade association, they do not always end up endorsing our preferred positions. Our company may take positions that are different from, or extend beyond the scope of, trade association platforms. We believe that the recent climate positions of our trade associations, including the American Petroleum Institute, are not inconsistent with the ambition of the Paris Agreement. We commit to evaluate the positions of our major trade associations over time and to disclose if their positions become inconsistent. We believe it is critical to remain engaged in these policy debates – both as a company and as an industry. Please see <https://www.marathonpetroleum.com/Sustainability/Political-Engagement/> for a summary of the climate positions of MPC's largest national and regional trade associations.

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☒ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☒ Paris Agreement

[Add row]

(4.12) Have you published information about your organization's response to environmental issues for this reporting year in places other than your CDP response?

Select from:

☒ Yes

(4.12.1) Provide details on the information published about your organization's response to environmental issues for this reporting year in places other than your CDP response. Please attach the publication.

Row 1

(4.12.1.1) Publication

Select from:

☒ In voluntary sustainability reports

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☒ Climate change

☒ Water

(4.12.1.4) Status of the publication

Select from:

☒ Complete

(4.12.1.5) Content elements

Select all that apply

☒ Governance

☒ Risks & Opportunities

☒ Strategy

☒ Emissions figures

☒ Emission targets

(4.12.1.6) Page/section reference

Governance: pg. 6 Risk Management: pg. 7 Strategy and Scenario Planning: pg. 7 Managing Physical Risks to Our Facilities: pg. 23 Climate-Related Metrics and Targets: pg. 28

(4.12.1.7) Attach the relevant publication

2024-MPC-MPLX-ClimateReport.pdf

(4.12.1.8) Comment

Relevant information and details of each of the selected content elements are outlined in the "TCFD Recommendation Index" table on page 39 of the MPC / MPLX Perspectives on Climate-Related Scenarios Report (attached; and available at <https://www.marathonpetroleum.com/content/documents/Responsibility/2024-MPC-MPLX-ClimateReport.pdf>).

Row 2

(4.12.1.1) Publication

Select from:

☒ In mainstream reports

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☒ Climate change

☒ Water

(4.12.1.4) Status of the publication

Select from:

☒ Complete

(4.12.1.5) Content elements

Select all that apply

☒ Risks & Opportunities

☒ Emission targets

(4.12.1.6) Page/section reference

Risks and Opportunities: - Sustainability approach (e.g. setting of GHG and freshwater withdrawal targets): pg. 41 of 2023 Form 10-K - Strategic updates (e.g. renewable fuels portfolio): pg. 41-42 of 2023 Form 10-K - Risks (e.g. severe weather events, other climate conditions, etc.): pg. 20 of 2023 Form 10-K Emission and water targets: pg. 8 of 2023 Annual Report

(4.12.1.7) Attach the relevant publication

2023_MPC_Annual_Report_and_10K.pdf

(4.12.1.8) Comment

Relevant information and details of each of the selected content elements are available in the 2023 Annual Report on Form 10-K (attached; and available at https://www.marathonpetroleum.com/content/documents/Investors/Annual_Report/2023_MPC_Annual_Report_and_10K.pdf).

Row 3

(4.12.1.1) Publication

Select from:

☒ In voluntary sustainability reports

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☒ Climate change

☒ Water

(4.12.1.4) Status of the publication

Select from:

☒ Complete

(4.12.1.5) Content elements

Select all that apply

- | | |
|---|--|
| ☒ Strategy | ☒ Value chain engagement |
| ☒ Governance | ☒ Biodiversity indicators |
| ☒ Emission targets | ☒ Public policy engagement |
| ☒ Emissions figures | ☒ Water accounting figures |
| ☒ Risks & Opportunities | |

(4.12.1.6) Page/section reference

Overview: pg. 3 Strengthen Resiliency: pg. 7 Innovate for the Future: pg. 20 Embed Sustainability: pg. 24 Appendix: pg. 45

(4.12.1.7) Attach the relevant publication

2023_SustainabilityReport.pdf

(4.12.1.8) Comment

Relevant information and details of each of the selected content elements are available in the 2023 Sustainability Report (attached; and available at https://www.marathonpetroleum.com/content/documents/Responsibility/Sustainability_Report/2023_SustainabilityReport.pdf). While we include an overview of our GHG program and metrics in MPC's annual Sustainability Report (available at <https://www.marathonpetroleum.com/Sustainability/>), additional details, including climate change risks and opportunities, can be found in our annual Perspectives on Climate-Related Scenarios report (available at <https://www.marathonpetroleum.com/content/documents/Responsibility/2022-MPC-MPLX-ClimateReport.pdf>).

[Add row]

C5. Business strategy

(5.1) Does your organization use scenario analysis to identify environmental outcomes?

Climate change

(5.1.1) Use of scenario analysis

Select from:

☒ Yes

(5.1.2) Frequency of analysis

Select from:

☒ Annually

Water

(5.1.1) Use of scenario analysis

Select from:

☒ Yes

(5.1.2) Frequency of analysis

Select from:

☒ Annually

[Fixed row]

(5.1.1) Provide details of the scenarios used in your organization's scenario analysis.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☒ IEA APS

(5.1.1.3) Approach to scenario

Select from:

☒ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☒ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☒ Policy

☒ Market

☒ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:

☒ 1.6°C - 1.9°C

(5.1.1.7) Reference year

2022

(5.1.1.8) Timeframes covered

Select all that apply

- ☑ 2030
- ☑ 2040
- ☑ 2050

(5.1.1.9) Driving forces in scenario

Regulators, legal and policy regimes

- ☑ Level of action (from local to global)

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

According to the IEA, the Announced Pledges Scenario (APS) aims to show to what extent the announced ambitions and targets, including the most recent ones, are on the path to deliver emissions reductions required to achieve net zero emissions by 2050. It includes all recent major national announcements as of September 2022 for 2030 targets and longer term net zero and other pledges, regardless of whether these have been anchored in implementing legislation or in updated NDCs. This scenario assumes a crude oil price (in 2022 USD) of 74/barrel in 2030 and 60/barrel in 2050. This scenario includes existing and announced CO2 pricing initiatives (e.g., Canada, Chile, Colombia, China, EU, and Korea) as well as additional measures of varying stringency and scope. This scenario relies on the World Energy Model, which assumes gross domestic product compound average annual growth rates from 2022 to 2030 of 1.9% in the United States and 3.0% for the world. It also assumes gross domestic product compound average annual growth rates from 2030 to 2050 of 2.0% in the United States and 2.5% for the world. This scenario was used for quantitative and qualitative purposes.

(5.1.1.11) Rationale for choice of scenario

We conduct scenario planning to evaluate how various differing future energy outcomes could impact our company. This includes evaluating climate-related risks and opportunities associated with different scenarios, both in the long-term and short-term, to understand where we should invest capital to strengthen our existing assets and where to invest in new growth opportunities. We've selected a multitude of hypothetical scenarios, including -IEA Announced Policies Scenario (APS) which assumes that all long-term emissions and energy access targets, including net-zero commitments, will be met on time and in full, even where policies are not yet in place to deliver them. -IEA Net-Zero Emissions by 2050 (NZE) which sets out a pathway for the global energy sector to achieve net-zero CO2 emissions by 2050, which limits global warming to 1.5 degrees Celsius. While the APS is exploratory, the NZE Scenario is normative, as it is designed to achieve the stated objective and show a pathway to that goal. -16 vetted IPCC Scenarios that have been identified by the IEA to reach net-zero energy sector emissions by 2050. Because they reach net-zero energy sector emissions by 2050, they are comparable in terms of energy sector ambition with the IEA NZE Scenario. -Sustainable Development Scenario (SDS) — The specific outcomes are modeled after the United Nations Sustainable Development Goals: 1) ensuring universal access to affordable, reliable, sustainable and modern energy services by 2030 (SDG 7.1); 2) substantially reducing air pollution (SDG 3.9); and 3) limiting worldwide temperature increases to well below 2 degrees Celsius (SDG 13). These scenarios provide our company with many potential versions of the future so we can plan ahead and adjust appropriately as the future unfolds.

Water

(5.1.1.1) Scenario used

Physical climate scenarios

☒ RCP 8.5

(5.1.1.2) Scenario used SSPs used in conjunction with scenario

Select from:

☒ No SSP used

(5.1.1.3) Approach to scenario

Select from:

☒ Qualitative

(5.1.1.4) Scenario coverage

Select from:

☒ Business activity

(5.1.1.5) Risk types considered in scenario

Select all that apply

☒ Chronic physical

(5.1.1.6) Temperature alignment of scenario

Select from:

☒ 4.0°C and above

(5.1.1.7) Reference year

2010

(5.1.1.8) Timeframes covered

Select all that apply

☒ 2100

(5.1.1.9) Driving forces in scenario

Regulators, legal and policy regimes

☒ Level of action (from local to global)

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Water availability is identified as a major concern throughout much of the world, including parts of the United States. Population growth, together with a changing climate, could further exacerbate global water stress. In our climate-related risks and opportunities report, we incorporate water-related outcomes, e.g. future water stress, as part of the annual scenario analysis. This report follows guidelines set forth by the Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD) and reflects scenarios such as the IEA Sustainable Development Scenario. These scenarios provide our company with several versions of the future so we can plan ahead and adjust appropriately as the future unfolds. Additionally, we used RCP8.5 as a physical climate scenario. This is a high greenhouse gas emissions scenario in the absence of policies to combat climate change, leading to continued and sustained growth in atmospheric greenhouse gas concentrations. Compared to the total set of RCPs, RCP8.5 corresponds to the pathway with the highest greenhouse gas emissions. IPCC's Special Report on the Ocean and Cryosphere in a Changing Climate listed a median global mean sea level rise in 2100 of 0.84 meters and a likely range of 0.61 - 1.10 meters. MPC currently operates five coastal refineries and 18 coastal terminals in the United States and this scenario was considered for qualitative purposes as it generally represents a worst-case climate change scenario in terms of sea level rise.

(5.1.1.11) Rationale for choice of scenario

As noted by the IPCC, RCP8.5 is a high greenhouse gas emissions scenario in the absence of policies to combat climate change, leading to continued and sustained growth in atmospheric greenhouse gas concentrations. Compared to the total set of RCPs, RCP8.5 corresponds to the pathway with the highest greenhouse gas emissions. IPCC's Special Report on the Ocean and Cryosphere in a Changing Climate listed a median global mean sea level rise in 2100 of 0.84 meters and a likely range of 0.61 - 1.10 meters. MPC operates five coastal petroleum refineries located in Anacortes, Washington; Garyville, Louisiana; Texas City, Texas (Galveston Bay); Los Angeles, California; and Kenai, Alaska. We also have one coastal joint venture renewable fuels facility in Martinez, California, and 17 coastal terminals located in Alaska, California, Florida, Louisiana, Texas and Washington. This scenario was considered for qualitative purposes as it generally represents a worst-case climate change scenario in terms of sea level rise.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☒ IEA NZE 2050

(5.1.1.3) Approach to scenario

Select from:

☒ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☒ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☒ Policy

☒ Market

☒ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:

☒ 1.5°C or lower

(5.1.1.7) Reference year

2022

(5.1.1.8) Timeframes covered

Select all that apply

☒ 2030

☒ 2040

(5.1.1.9) Driving forces in scenario

Regulators, legal and policy regimes

☑ Level of action (from local to global)

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

According to the IEA, the NZE2050 is a scenario which sets out a narrow but achievable pathway for the global energy sector to achieve net zero CO2 emissions by 2050. It doesn't rely on emissions reductions from outside the energy sector to achieve its goals. The scenario has the objective to show what is needed across the main sectors by various actors, and by when, for the world to achieve net zero energy related and industrial process CO2 emissions by 2050 while meeting other energy-related sustainable development goals. This scenario assumes a crude oil price (in 2022 USD) of 42/barrel in 2030 and 25/barrel in 2050. This scenario also assumes CO2 prices (in 2022 USD) in select advanced economies, including the United States, of 140/tCO2 in 2030 and 250/tCO2 in 2050. This scenario relies on the World Energy Model, which assumes gross domestic product compound average annual growth rates from 2022 to 2030 of 1.9% in the United States and 3.0% for the world. It also assumes gross domestic product compound average annual growth rates from 2030 to 2050 of 2.0% in the United States and 2.5% for the world. This scenario was used for quantitative and qualitative purposes.

(5.1.1.11) Rationale for choice of scenario

We conduct scenario planning to evaluate how various differing future energy outcomes could impact our company. This includes evaluating climate-related risks and opportunities associated with different scenarios, both in the long-term and short-term, to understand where we should invest capital to strengthen our existing assets and where to invest in new growth opportunities. We've selected a multitude of hypothetical scenarios, including -IEA Announced Policies Scenario (APS) which assumes that all long-term emissions and energy access targets, including net-zero commitments, will be met on time and in full, even where policies are not yet in place to deliver them. -IEA Net-Zero Emissions by 2050 (NZE) which sets out a pathway for the global energy sector to achieve net-zero CO2 emissions by 2050, which limits global warming to 1.5 degrees Celsius. While the APS is exploratory, the NZE Scenario is normative, as it is designed to achieve the stated objective and show a pathway to that goal. -16 vetted IPCC Scenarios that have been identified by the IEA to reach net-zero energy sector emissions by 2050. Because they reach net-zero energy sector emissions by 2050, they are comparable in terms of energy sector ambition with the IEA NZE Scenario. -Sustainable Development Scenario (SDS) — The specific outcomes are modeled after the United Nations Sustainable Development Goals: 1) ensuring universal access to affordable, reliable, sustainable and modern energy services by 2030 (SDG 7.1); 2) substantially reducing air pollution (SDG 3.9); and 3) limiting worldwide temperature increases to well below 2 degrees Celsius (SDG 13). These scenarios provide our company with many potential versions of the future so we can plan ahead and adjust appropriately as the future unfolds.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☒ IEA SDS

(5.1.1.3) Approach to scenario

Select from:

☒ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☒ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☒ Policy

☒ Market

☒ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:

☒ 1.6°C - 1.9°C

(5.1.1.7) Reference year

2020

(5.1.1.8) Timeframes covered

Select all that apply

☒ 2030

(5.1.1.9) Driving forces in scenario

Regulators, legal and policy regimes

☑ Level of action (from local to global)

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

MPC assessed its refining asset competitiveness using the World Oil Refining Logistics and Demand (WORLD) model in a well below 2 degree scenario with approximately 20 million barrels per day less oil demand in 2030 (IEA SDS) compared to 2019. The U.S. refining sector is examined in-depth. Additionally, developments in, and competition with all other world regions are analyzed in areas such as carbon regimes, market disruptions, fuel regulations, crude export policies, and trade and refining outlooks. The results of this analysis indicate that the U.S. refining sector would remain globally competitive in a carbon constrained future, with minimal rationalization expected. Furthermore, the analysis indicated no rationalization among MPC's refining fleet.

(5.1.1.11) Rationale for choice of scenario

We conduct scenario planning to evaluate how various differing future energy outcomes could impact our company. This includes evaluating climate-related risks and opportunities associated with different scenarios, both in the long-term and short-term, to understand where we should invest capital to strengthen our existing assets and where to invest in new growth opportunities. We've selected a multitude of hypothetical scenarios, including -IEA Announced Policies Scenario (APS) which assumes that all long-term emissions and energy access targets, including net-zero commitments, will be met on time and in full, even where policies are not yet in place to deliver them. -IEA Net-Zero Emissions by 2050 (NZE) which sets out a pathway for the global energy sector to achieve net-zero CO2 emissions by 2050, which limits global warming to 1.5 degrees Celsius. While the APS is exploratory, the NZE Scenario is normative, as it is designed to achieve the stated objective and show a pathway to that goal. -16 vetted IPCC Scenarios that have been identified by the IEA to reach net-zero energy sector emissions by 2050. Because they reach net-zero energy sector emissions by 2050, they are comparable in terms of energy sector ambition with the IEA NZE Scenario. -Sustainable Development Scenario (SDS) — The specific outcomes are modeled after the United Nations Sustainable Development Goals: 1) ensuring universal access to affordable, reliable, sustainable and modern energy services by 2030 (SDG7.1); 2) substantially reducing air pollution (SDG 3.9); and 3) limiting worldwide temperature increases to well below 2 degrees Celsius (SDG 13). These scenarios provide our company with many potential versions of the future so we can plan ahead and adjust appropriately as the future unfolds.

[Add row]

(5.1.2) Provide details of the outcomes of your organization's scenario analysis.

Climate change

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

- ☒ Risk and opportunities identification, assessment and management
- ☒ Strategy and financial planning
- ☒ Resilience of business model and strategy
- ☒ Capacity building
- ☒ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

- ☒ Product-level

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

MPC retained HSB Solomon Associates LLC (Solomon) to evaluate the resiliency of our refining assets against the projections in the NZE2050 and SDS as presented in the World Energy Outlook 2021. The evaluation indicated that the U.S. refining industry has a lower cost structure than the rest of the world. This is, in part, due to lower natural gas costs, which is a significant operating cost to refineries. This cost disparity has been widened by the disruption in energy markets following the Russian invasion of Ukraine. Furthermore, MPC's refineries are cost-advantaged within the United States. Actions taken to make our refining assets more resilient and cost competitive, include: -Strengthening our portfolio by ceasing crude processing at three less competitive refineries and repurposing two for renewable diesel production. -Adhering to strict capital discipline to evaluate proposed growth projects against capital return thresholds and our longer-term climate targets. In addition, since 2020 we have further enhanced the competitiveness of our renewable division by extending further into the renewables value chain by purchasing our Beatrice pretreatment facility, converting our Cincinnati facility into a renewable fuel feedstock aggregation facility, and entering into a joint venture to construct the first dedicated soybean processing plant in North Dakota. This new, state-of-the-art processing plant, which began receiving soybeans in late 2023, enhances our ability to source and optimize logistically advantaged feedstock for our growing renewable fuels business. This facility is expected to deliver enough soybean oil to produce approximately 75 million gallons per year of renewable diesel. Due to the cost competitiveness of our refining assets, we expect our refining system and the products it produces to remain resilient, even under carbon-constrained scenarios such as the NZE2050. For additional detail on MPC's scenario analysis, please see our annual Perspectives on Climate-related Scenarios report, available at <https://www.marathonpetroleum.com/Sustainability/>.

Water

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

- ☒ Risk and opportunities identification, assessment and management
- ☒ Strategy and financial planning

- ☒ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

- ☒ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

To manage risk surrounding water use, in 2020, we adopted a formal, refinery-wide "Focus on Water" program to further assess water use, understand and mitigate water risks and identify opportunities to reduce water use. To ensure success, we established a company wide target to reduce freshwater withdrawal intensity 20% by 2030 from 2016 levels. We are able to increase resiliency and reduce long term operating costs by reducing freshwater intensity. This metric allows us to measure progress with our climate strategy and risk management process. We assess progress with these metrics on an annual basis.

[Fixed row]

(5.2) Does your organization's strategy include a climate transition plan?

(5.2.1) Transition plan

Select from:

- ☒ No and we do not plan to develop a climate transition plan within the next two years

(5.2.15) Primary reason for not having a climate transition plan that aligns with a 1.5°C world

Select from:

- ☒ Other, please specify :MPC's strategy has been influenced by climate-related risks and opportunities, as described in our annual TCFD report (please see TCFD recommendation mapping table on page 39 of our annual TCFD report, available at <https://www.marathonpetroleum.com>)

(5.2.16) Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world

MPC's strategy has been influenced by climate-related risks and opportunities, as described in our annual TCFD report (please see TCFD recommendation mapping table on page 39 of our annual TCFD report, available at <https://www.marathonpetroleum.com/Sustainability/>). However, we do not have a climate transition plan that is aligned with a 1.5C world as defined by CDP. CDP's technical definition of a credible climate transition plan indicates a 1.5C-aligned plan should outline a trajectory

to halve GHG emissions by 2030, per the IPCC and SBTi. MPC inherently can't align with this because 1) the SBTi currently does not accept commitments or validate targets for companies in the oil and gas sector and 2) MPC does not plan to reduce the production of petroleum-based fuels by 50% by 2030, which is generally what would be required to reduce scope 3 category 11 GHG emissions by 50%. However, MPC does believe its current business plan and GHG targets can be aligned with the trajectory of a 1.5C world. Beyond the fact that there is not one preordained path to a 1.5 C world, if a particular path was followed that reduced emissions by a certain percentage, not all companies would experience that exact level of emissions reduction in corporate greenhouse gas inventory. The refining sector, for example, can generally reduce scope 3 category 11 GHG emissions by closing, divesting, or converting less-competitive refineries to smaller renewable fuel facilities. Refined products are commodities, and in commodity industries the low-cost operator typically survives during periods of rationalization. Thus, it is important to take asset competitiveness into account when analyzing a scenario where declining demand leads to rationalization of an industry. As such, a company with less-competitive assets would likely experience more rationalization, and more scope 3 reductions, than a company with competitive assets. To evaluate the resiliency of our refining assets against the projections in various scenarios, MPC retained HSB Solomon Associates LLC (Solomon) to assess our refining asset competitiveness. The evaluation indicated the U.S. refining industry has a lower cost structure and is therefore cost advantaged compared to the rest of the global fleet. Furthermore, the average production costs of MPC's refineries continue to be below the national average.

[Fixed row]

(5.3) Have environmental risks and opportunities affected your strategy and/or financial planning?

(5.3.1) Environmental risks and/or opportunities have affected your strategy and/or financial planning

Select from:

☒ Yes, both strategy and financial planning

(5.3.2) Business areas where environmental risks and/or opportunities have affected your strategy

Select all that apply

☒ Products and services

☒ Upstream/downstream value chain

☒ Operations

[Fixed row]

(5.3.1) Describe where and how environmental risks and opportunities have affected your strategy.

Products and services

(5.3.1.1) Effect type

Select all that apply

- ☒ Risks
- ☒ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

- ☒ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

We continually evaluate short-, medium-, and long-term product demand projections based on different scenarios. As an example, to evaluate the resiliency of our refining assets against projections in various scenarios, MPC retained HSB Solomon Associates LLC (Solomon) to assess our refining asset competitiveness. Solomon's analysis indicated the majority of MPC's refining and marketing portfolio is expected to remain cost competitive through 2040, even in a carbon constrained future such as IEA's SDS. This is due to the U.S. cost advantages highlighted in our TCFD Climate Report, as well as the benefits that our integrated business model provides. Solomon's analysis also indicated our Martinez, California, and Gallup, New Mexico, refineries could face economic and competitive challenges if demand for traditional transportation fuels declined to the levels in the SDS. This was confirmed by the short-term demand interruptions from COVID-19. Informed by Solomon's analysis and the short-term demand destruction seen during the COVID pandemic, we decided to cease crude processing at our Gallup, New Mexico, refinery and retool our Martinez, California, refinery into a renewable diesel facility to align with California's objectives established by its LCFS. This conversion leverages existing infrastructure to generate credits through the California Low Carbon Fuel Standard. In addition to Martinez, we also completed a similar conversion of our Dickinson, North Dakota, refinery. This is an example of how we transformed a climate-relate risk into an opportunity that will continue to bring good returns on investment. Furthermore, we recently expanded our renewable fuels portfolio, with an equity investment in LF Bioenergy, a company that produces renewable natural gas (RNG) from dairy operations. The joint venture is focused on developing and growing a portfolio of dairy-based, low carbon-intensity RNG projects. The first plant, located in upstate New York, started operating in the first half of 2023.

Upstream/downstream value chain

(5.3.1.1) Effect type

Select all that apply

- ☒ Risks
- ☒ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

- ☒ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

We are evaluating opportunities across the value chain to further reduce the life cycle carbon intensity of our products. This includes: - Lower carbon feedstocks. We look for ways to utilize waste oils and lower carbon seed oils. - Renewable electricity. We are evaluating opportunities to utilize wind and solar. For example: Our Robinson, Illinois, refinery is a part of a project to install a 30-acre solar farm on adjacent refinery-owned land that is expected to help power the facility by the end of 2024. - Carbon Capture, Utilization and Sequestration (CCUS). We utilize CCUS at five facilities and are evaluating opportunities for carbon capture systems and CO2 sequestration. For example, we are collaborating with Blue Planet Systems Corporation to advance the commercialization of technology to convert CO2 into solid aggregate and concrete block. - Climate Smart Agriculture. We are working with agricultural partners to identify and optimize practices that reduce greenhouse gas emissions and increase carbon storage in agricultural lands, which will help lower the carbon intensity of bio-based feedstocks used by our renewable fuel facilities in the medium- and long-term.

Operations

(5.3.1.1) Effect type

Select all that apply

- ☒ Risks
- ☒ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

- ☒ Climate change
- ☒ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

MPC created a Focus on Energy program that has helped avoid the equivalent of several billion BTU/hour of energy use over the past decade. Our FOE program is our holistic approach to improving energy efficiency to drive continuous improvement and reduce GHG emissions. As a result of our energy efficiency efforts, MPC recently earned its fifth consecutive ENERGY STAR Partner of the Year – Sustained Excellence Award, the highest level of recognition in the U.S. Environmental Protection Agency’s ENERGY STAR program. This honor acknowledges the success of MPC’s company-wide energy efficiency and environmental compliance efforts in 2023 and the ability to maintain a superior level of performance over time. Examples of achievements in 2023 factored into selection for the award include: - Enhancements to our refining Focus on Energy key performance indicator program further reduced energy consumption and emissions. This program has avoided the equivalent of over 1.5 billion BTU per hour of energy use. In 2023, key performance indicators were developed for the Martinez Renewable Fuels facility. -5

ENERGY STAR certified oil refineries; two have secured certifications all 18 years that certification has existed. The ENERGY STAR certification indicates energy efficiency being in the top 25% of similar facilities nationwide. This set a record for the most certified refineries from a single petroleum refining company in one year. We have reduced our scope 1 and 2 GHG intensity for the ninth straight year, achieving a 27% reduction since 2014. -Submitted 2 additional ENERGY STAR Challenge for Industry applications for our gas processing facilities. -Completing significant projects that enabled energy-efficient operation. We met our goal to install low-emissions packing and test ports at 50% of reciprocating compressors within our natural gas operations and studied optimizing insulation repairs and steam management to reduce steam demand and retire boilers and cooling towers. In 2019, we launched our Focus on Water program and began implementation in early 2020. This initiative, sponsored by our Executive Vice President of Refining, will help our refineries continue to assess their water use, recognize and mitigate water risks, and identify opportunities to reduce water demand. Our Focus on Water program supports our commitment to reduce freshwater withdrawals and incorporates reporting guidelines of the international Task Force on Climate-related Financial Disclosures and the GRI, which address several water-related metrics such as water intensity. Additionally, we regularly participate in industry trade groups where we can work with our peers to develop and share best practices. Wastewater treatment is also a significant operating expense at our refineries. Our wastewater treatment facilities are operated and maintained to meet the strict environmental requirements in our National Pollutant Discharge Elimination System or industrial pre-treatment permits.

[Add row]

(5.3.2) Describe where and how environmental risks and opportunities have affected your financial planning.

Row 1

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

- ☒ Revenues
- ☒ Capital expenditures
- ☒ Capital allocation
- ☒ Acquisitions and divestments

(5.3.2.2) Effect type

Select all that apply

- ☒ Risks
- ☒ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☒ Climate change

☒ Water

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Our investments strengthen the competitive position of our assets, increase our resilience and allocate growth capital between traditional and lower-carbon investments. Our risk-based capital allocation strategy is designed to ensure strict capital discipline and long-term competitive returns. We require higher return on-investment (ROI) thresholds for projects with greater financial and regulatory uncertainty than those with more stable cash flow and lower regulatory risk. The ROI thresholds are highest for refining investments. This has the effect of a de facto carbon price because refining projects, with the highest carbon exposure, must overcome a much higher hurdle rate than, for instance, investments in our MPLX natural gas Gathering and Processing business, with lower carbon and water exposure. Projects are individually evaluated against our long-term price forecast, which considers the demand projections from various Paris-aligned scenarios along with our four climate-related targets. This process has allowed us to achieve a significant shift in our manufacturing toward lower carbon outputs. This process is driving significant capital investment that supports a lower-carbon future. As an example of commitment to investing in a sustainable, energy-diverse future, we've invested 1 billion to convert two of our petroleum refineries to produce renewable diesel (RD). In 2020, we completed the conversion of our Dickinson, North Dakota, refinery, which produced 154 million gallons of RD in 2023. Through a joint venture with Neste in 2022 we completed the conversion of our Martinez, California, refinery and began producing RD in 2023. We've entered into a joint venture with ADM to build a state-of-the-art 350 million soybean processing facility, Green Bison Soy Processing, in North Dakota. This facility began receiving soybeans in 2023 and is expected to produce 600 million lbs of vegetable oil to serve as feedstock for the production of a targeted 75 million gallons of RD annually. We've expanded our portfolio with an equity investment in LF Bioenergy, which produces renewable natural gas from dairy operations. The first plant started operating in 2023. We continue to invest growth capital to expand and increase utilization of our strategic natural gas business. Of the growth capital allocated to our refining assets, the majority is directed at modernization and strengthening the competitive position of our assets rather than increasing capacity.

[Add row]

(5.4) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition
	Select from: ☒ No, and we do not plan to in the next two years

[Fixed row]

(5.5) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
	Select from: ☒ Yes	Virent, Inc., a wholly owned research and development (R&D) subsidiary of MPC, is developing lower carbon intensity plant-based fuels and chemicals.

[Fixed row]

(5.5.7) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Row 1

(5.5.7.1) Technology area

Select from:

☒ Alternative liquid fuels

(5.5.7.2) Stage of development in the reporting year

Select from:

☒ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

100

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

100

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

At its R&D facility and demonstration plant in Madison, Wisconsin, Virent, a wholly owned subsidiary of MPC, has produced tens of thousands of gallons of BioForm fuels and chemicals that have been used in successful applications. Virent's BioForming S2A technology converts widely available, plant-based sugars into low-carbon renewable fuels and chemicals that are almost identical to those derived from petroleum. That makes them "drop-in" replacements for their petroleum-based counterparts. In other words, Virent's bio-based fuels can be used without requiring any modifications to today's engines or infrastructure and its chemicals can be direct replacements for the same compounds derived from petroleum. Note: since Virent is our only R&D facility, the % of total R&D investment is listed as 100%. [Add row]

(5.6) Break down, by fossil fuel expansion activity, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

Exploration of new oil fields

(5.6.1) CAPEX in the reporting year for this expansion activity (unit currency as selected in 1.2)

0

(5.6.2) CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year

0

(5.6.3) CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years

0

(5.6.4) Explain your CAPEX calculations, including any assumptions

MPC and MPLX do not operate in the upstream segment.

Exploration of new natural gas fields

(5.6.1) CAPEX in the reporting year for this expansion activity (unit currency as selected in 1.2)

0

(5.6.2) CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year

0

(5.6.3) CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years

0

(5.6.4) Explain your CAPEX calculations, including any assumptions

MPC and MPLX do not operate in the upstream segment.

Expansion of existing oil fields

(5.6.1) CAPEX in the reporting year for this expansion activity (unit currency as selected in 1.2)

0

(5.6.2) CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year

0

(5.6.3) CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years

0

(5.6.4) Explain your CAPEX calculations, including any assumptions

MPC and MPLX do not operate in the upstream segment.

Expansion of existing natural gas fields

(5.6.1) CAPEX in the reporting year for this expansion activity (unit currency as selected in 1.2)

0

(5.6.2) CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year

0

(5.6.3) CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years

0

(5.6.4) Explain your CAPEX calculations, including any assumptions

MPC and MPLX do not operate in the upstream segment.

[Fixed row]

(5.10) Does your organization use an internal price on environmental externalities?

(5.10.1) Use of internal pricing of environmental externalities

Select from:

☒ No, and we do not plan to in the next two years

(5.10.3) Primary reason for not pricing environmental externalities

Select from:

☒ Other, please specify :We utilize a risk-based capital allocation strategy based on return-on-investment thresholds.

(5.10.4) Explain why your organization does not price environmental externalities

Our risk-based capital allocation strategy is designed to ensure strict capital discipline and long-term competitive returns for our shareholders. We require higher return on-investment (ROI) thresholds for projects with greater financial and regulatory uncertainty than those with more stable cash flow and lower regulatory risk.

The ROI thresholds are highest for refining investments. This has the effect of a de facto carbon price because refining projects, with the highest carbon exposure, must overcome a much higher hurdle rate than, for instance, investments in our MPLX natural gas Gathering and Processing business, with lower carbon exposure. Projects are also individually evaluated against our long-term price forecast, which considers the demand projections from various Paris-aligned scenarios along with our four climate-related targets. This process has allowed us to achieve a significant shift in our manufacturing toward lower carbon outputs. This process is driving significant capital investment that supports a lower-carbon future. We currently do not use an internal price on water. Instead we use the actual cost of water at each of our sites in evaluating projects. Because water is a limited resource and not a fungible commodity beyond locations it tends to be more expensive in areas of higher water stress and less expensive in areas of abundance.

[Fixed row]

(5.11) Do you engage with your value chain on environmental issues?

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Suppliers	Select from: ☒ Yes	Select all that apply ☒ Climate change ☒ Water
Customers	Select from: ☒ Yes	Select all that apply ☒ Climate change ☒ Water
Investors and shareholders	Select from: ☒ Yes	Select all that apply ☒ Climate change ☒ Water
Other value chain stakeholders	Select from: ☒ Yes	Select all that apply ☒ Climate change ☒ Water

[Fixed row]

(5.11.1) Does your organization assess and classify suppliers according to their dependencies and/or impacts on the environment?

	Assessment of supplier dependencies and/or impacts on the environment
Climate change	Select from: ☒ No, we do not assess the dependencies and/or impacts of our suppliers, and have no plans to do so within two years
Water	Select from: ☒ No, we do not assess the dependencies and/or impacts of our suppliers, and have no plans to do so within two years

[Fixed row]

(5.11.2) Does your organization prioritize which suppliers to engage with on environmental issues?

Climate change

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☒ No, we do not prioritize which suppliers to engage with on this environmental issue

(5.11.2.3) Primary reason for no supplier prioritization on this environmental issue

Select from:

☒ Not an immediate strategic priority

(5.11.2.4) Please explain

Currently, our Supplier Code of Conduct details expectations of supplier standards and work practices. How we conduct ourselves is as important as the results achieved; as such, we expect our suppliers to comply with environmental, social and governance requirements, and also adhere to our policies, procedures, Code of Business Conduct and Supplier Code of Conduct and apply them to how they do business. To avoid potential conflicts with ESG issues, we periodically review our purchasing practices for alignment with our Code of Business Conduct and Supplier Code of Conduct. Example of initiatives in place for 2023, where appropriate, to assess suppliers on ESG performance and compliance with our Supplier Code of Conduct include: • Prequalification reviews of potential and existing suppliers to assess health, environmental, safety and security programs and performance. Results are considered during the supplier selection process. • Third-party ESG assessments conducted with approximately 90 of our Tier 1 critical suppliers. • Daily screenings of all new and existing suppliers for identity verification, regulatory compliance and security concerns. • On-site supplier inspections conducted for providers of certain products or services. • Customs Trade Partnership Against Terrorism-certified partner voluntarily working with U.S. Customs and Border Protection on best practices of imported materials.

Water

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☒ No, we do not prioritize which suppliers to engage with on this environmental issue

(5.11.2.3) Primary reason for no supplier prioritization on this environmental issue

Select from:

☒ We engage with all suppliers

(5.11.2.4) Please explain

Part of MPCs Supplier Code of Conduct includes health and safety provisions including that suppliers provide and maintain a safe and healthy work environment that meets or exceeds applicable legal standards including the right to sufficient, safe, acceptable, and accessible water. If requested, supplier will provide evidence of compliance with this Code. Supplier will also allow MPC to conduct audit rights in the manner contemplated by their contract with MPC.

[Fixed row]

(5.11.5) Do your suppliers have to meet environmental requirements as part of your organization's purchasing process?

Climate change

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☒ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☒ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

The renewable diesel produced today has a carbon intensity that's over 50% lower than diesel derived from petroleum. To meet this lower carbon intensity, it is imperative to meet standards for acquired feedstock. For example, distillers corn oil and sorghum oil feedstock suppliers are required to adhere to a supplier feedstock information compliance commitment, and include, but are not limited to, renewable biomass certifications, source locations, etc. These requirements pertain to the material acquisition & pre-processing stage.

Water

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☒ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☒ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

Part of MPCs Supplier Code of Conduct includes health and safety provisions including that suppliers provide and maintain a safe and healthy work environment that meets or exceeds applicable legal standards including the right to sufficient, safe, acceptable, and accessible water. If requested, supplier will provide evidence of compliance with this Code. Supplier will also allow MPC to conduct audit rights in the manner contemplated by their contract with MPC. Suppliers that knowingly violate the law or seek to have MPC employees violate the law our Code of Business Conduct, will be subject to appropriate sanctions, including the possible cancellation of all current and future contracts.

[Fixed row]

(5.11.6) Provide details of the environmental requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Climate change

(5.11.6.1) Environmental requirement

Select from:

☒ Compliance with an environmental certification, please specify :Renewable biomass certificate that states that the feedstock is a renewable biomass.

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☒ Certification

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☒ 1-25%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☒ 1-25%

(5.11.6.7) % tier 1 supplier-related scope 3 emissions attributable to the suppliers required to comply with this environmental requirement

Select from:

☒ Less than 1%

(5.11.6.8) % tier 1 supplier-related scope 3 emissions attributable to the suppliers in compliance with this environmental requirement

Select from:

- ☒ Less than 1%

(5.11.6.9) Response to supplier non-compliance with this environmental requirement

Select from:

- ☒ Exclude

(5.11.6.12) Comment

Our Dickinson, North Dakota, Renewable Diesel facility produced nearly 154 million gallons of renewable diesel and other renewable products in 2023, and our Martinez Renewable Fuels Facility – owned through our 50/50 joint venture with Neste – began producing renewable diesel in the first quarter of 2023. We expect to reach full capacity by the end of 2024. Both facilities convert biogenic oils — distillers corn oil, soybean oil, canola and tallow—and used cooking oil into renewable diesel, which can be used in existing infrastructure and engines. The renewable diesel produced today has a carbon intensity that's over 50% lower than diesel derived from petroleum, and we continue to explore projects that have the potential to produce net-zero fuel at the facility, such as renewable electricity, carbon capture, utilization and sequestration, and regenerative agriculture. To meet this lower carbon intensity, it is imperative to meet standards for acquired feedstock. For example, feedstock suppliers of renewable feedstocks, such as distillers corn oil and sorghum oil, are required to adhere to a supplier feedstock information compliance commitment, and include, but are not limited to, renewable biomass certifications, source locations, etc. These requirements pertain to the material acquisition & pre-processing stage.

Water

(5.11.6.1) Environmental requirement

Select from:

- ☒ Provision of fully-functioning, safely managed WASH services to all employees

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

- ☒ First-party verification
☒ Grievance mechanism/ Whistleblowing hotline

☒ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☒ 100%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☒ 100%

(5.11.6.9) Response to supplier non-compliance with this environmental requirement

Select from:

☒ Exclude

(5.11.6.12) Comment

If requested, supplier will provide evidence of compliance with this Code. Supplier will also allow MPC to conduct audit rights in the manner contemplated by their contract with MPC. Suppliers that knowingly violate the law or seek to have MPC employees violate the law or Code of Business Conduct, will be subject to appropriate sanctions, including the possible cancellation of all current and future contracts. MPC's Integrity Helpline enables Suppliers to anonymously report unethical or illegal acts, or suspicions of unethical or illegal acts.

[Add row]

(5.11.7) Provide further details of your organization's supplier engagement on environmental issues.

Climate change

(5.11.7.2) Action driven by supplier engagement

Select from:

☒ No other supplier engagement

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☒ No other supplier engagement

[Add row]

(5.11.9) Provide details of any environmental engagement activity with other stakeholders in the value chain.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☒ Customers

(5.11.9.2) Type and details of engagement

Innovation and collaboration

☒ Other innovation and collaboration, please specify :Virent, Inc., a wholly owned research and development (R&D) subsidiary of MPC, is developing low carbon intensity plant-based aviation fuels that will be used in test flights.

(5.11.9.3) % of stakeholder type engaged

Select from:

☒ Less than 1%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☒ 1-25%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

At its R&D facility and demonstration plant in Madison, Wisconsin, Virent, a wholly owned subsidiary of MPC, has produced tens of thousands of gallons of BioForm fuels and chemicals that have been used in successful applications. Virent's BioForming S2A technology converts widely available, plant based sugars into low-carbon renewable fuels that are almost identical to those derived from petroleum. That makes them "drop-in" replacements for their petroleum-based counterparts. In other words, Virent's biobased fuels can be used without requiring any modifications to today's engines or infrastructure and its chemicals can be direct replacements for the same compounds derived from petroleum. Virent's BioForming S2A technology creates synthesized aromatic kerosene (SAK), a critical component that enables 100% drop-in sustainable aviation fuel (SAF) and results in a greater than 50% reduction in particulate matter emissions compared to conventional jet fuel. BioForming SAK can be used both as an SAF blending component in conventional jet fuel or combined with other SAF to provide a 100% drop-in SAF alternative. Virent's BioForm SAK is making aviation history as a component of 100% SAF used in test flights that were conducted in collaboration with United Airlines, Emirates, Rolls Royce and Gulfstream, and Bell Helicopter. Note: The 7% of customer-related Scope 3 emissions was estimated using the total Scope 3 Category 11 attributed to jet fuel sales because SAF has the potential to impact any customer that uses jet fuel.

(5.11.9.6) Effect of engagement and measures of success

Air transport will continue to be one of the primary ways people build connections with each other and the world around them, and how goods are moved rapidly around the world. SAF is a way to lower the carbon intensity of these critical activities.

Water

(5.11.9.1) Type of stakeholder

Select from:

☒ Customers

(5.11.9.2) Type and details of engagement

Education/Information sharing

☒ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☒ 1-25%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

ENERGY STAR Industrial Showcases performed at our Robinson and Detroit Refinery to promote engagement and collaboration on both energy reduction and water reduction ideas 2023. Attendees would include customers as well as suppliers. Highlight efficiency efforts and share best practices.

(5.11.9.6) Effect of engagement and measures of success

Ideas fostered to enhance and improve water efficiency and other ideas to consider to continue to progress toward our water intensity reduction goal of 20% reduction by 2030 from 2016 levels.

Water

(5.11.9.1) Type of stakeholder

Select from:

☒ Investors and shareholders

(5.11.9.2) Type and details of engagement

Education/Information sharing

☒ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☒ 1-25%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

ENERGY STAR Industrial Showcases performed at our Robinson and Detroit Refinery to promote engagement and collaboration on both energy reduction and water reduction ideas 2023. Attendees would include employees and local residents who would be shareholders in the company. Highlight efficiency efforts and share best practices.

(5.11.9.6) Effect of engagement and measures of success

Ideas fostered to enhance and improve water efficiency and other ideas to consider to continue to progress toward our water intensity reduction goal of 20% reduction by 2030 from 2016 levels. The shareholders would have an opportunity to express any issues or opportunities they saw and collaborate on improvements/ideas to increase water efficiency.

Water

(5.11.9.1) Type of stakeholder

Select from:

☒ Other value chain stakeholder, please specify :EPA and Government officials

(5.11.9.2) Type and details of engagement

Education/Information sharing

☒ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☒ Less than 1%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

ENERGY STAR Industrial Showcases performed at our Robinson and Detroit Refinery to promote engagement and collaboration on both energy reduction and water reduction ideas 2023. Attendees would include representatives from the EPA as well as local elected officials. Highlight efficiency efforts and share best practices.

(5.11.9.6) Effect of engagement and measures of success

Ideas fostered to enhance and improve water efficiency and other ideas to consider to continue to progress toward our water intensity reduction goal of 20% reduction by 2030 from 2016 levels. The EPA and local officials have an opportunity to hear the progress we have made on water efficiency and offer feedback.

[Add row]

C6. Environmental Performance - Consolidation Approach

(6.1) Provide details on your chosen consolidation approach for the calculation of environmental performance data.

Climate change

(6.1.1) Consolidation approach used

Select from:

☒ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

MPC reports its scope 1 & 2 GHG emissions on an operational control basis. This is different from the consolidated financial reporting boundary used in our financial reporting because, for example, a joint venture we do not have operational control of would not be included in our operational control GHG inventory. Note that this does not result in significant exclusions from our inventory as the large majority of our scope 1 & 2 GHG emissions come from our petroleum refineries which are all under MPC operational control. We use this methodology because we generally have more ability to influence actions that can affect the scope 1 & 2 GHG emissions of an asset if we have full operational control. Additionally, this methodology generally aligns with our regulatory GHG reporting for scope 1 emissions. MPC estimates and reports the Scope 3 GHG emissions that would result from 1) Category 1 - the upstream emissions from the production of products purchased and 2) Category 11 - the use of its refining products, which are aligned with the purchased crude oil and other charge and blendstocks and refined product yields reported in MPC's annual Form 10-K, respectively. This is the same basis as our financial reporting.

Water

(6.1.1) Consolidation approach used

Select from:

☒ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

MPC reports its water data based on an operational control basis. This is different from the consolidated financial reporting boundary used in our financial reporting. Note that this does not result in significant exclusions from our inventory as the large majority of our water data come from our petroleum refineries which are all

under MPC operational control. We use this methodology because we generally have more ability to influence actions that can affect the water data of an asset if we have full operational control. Additionally, this methodology generally aligns with our regulatory water reporting.

[Fixed row]

C7. Environmental performance - Climate Change

(7.1) Is this your first year of reporting emissions data to CDP?

Select from:

☒ No

(7.1.1) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

	Has there been a structural change?
	Select all that apply ☒ No

[Fixed row]

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?
	Select all that apply ☒ No

[Fixed row]

(7.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Select all that apply

- ☒ The Greenhouse Gas Protocol: Scope 2 Guidance
- ☒ US EPA Mandatory Greenhouse Gas Reporting Rule
- ☒ US EPA Emissions & Generation Resource Integrated Database (eGRID)
- ☒ The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- ☒ US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources
- ☒ American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009

(7.3) Describe your organization's approach to reporting Scope 2 emissions.

(7.3.1) Scope 2, location-based

Select from:

- ☒ We are reporting a Scope 2, location-based figure

(7.3.2) Scope 2, market-based

Select from:

- ☒ We are reporting a Scope 2, market-based figure

(7.3.3) Comment

Per the scope 2 accounting methods determination flow chart in figure 6.1 of the GHG Protocol Scope 2 Guidance (WRI/WBCSD, 2015, pg. 45), MPC uses location-based emission factors to calculate the market-based Scope 2 emissions, which renders our market-based scope 2 total the same as our location-based total.

[Fixed row]

(7.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Select from:

☒ Yes

(7.4.1) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Row 1

(7.4.1.1) Source of excluded emissions

Capital goods, fuel and energy-related activities (not included in Scope 1 or 2), upstream transportation and distribution, waste generated in operations, business travel, employee commuting, upstream leased assets, downstream transportation and distribution, processing of sold products, end-of-life treatment of sold products, downstream leased assets, franchises, and investments are estimated to be a small contribution to the overall Scope 3 footprint and considered not relevant.

(7.4.1.2) Scope(s) or Scope 3 category(ies)

Select all that apply

- | | |
|---|---|
| ☒ Scope 3: Franchises | ☒ Scope 3: Upstream leased assets |
| ☒ Scope 3: Investments | ☒ Scope 3: Downstream leased assets |
| ☒ Scope 3: Capital goods | ☒ Scope 3: Processing of sold products |
| ☒ Scope 3: Business travel | ☒ Scope 3: Waste generated in operations |
| ☒ Scope 3: Employee commuting | ☒ Scope 3: End-of-life treatment of sold products |
| ☒ Scope 3: Upstream transportation and distribution | |
| ☒ Scope 3: Downstream transportation and distribution | |
| ☒ Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) | |

(7.4.1.6) Relevance of Scope 3 emissions from this source

Select from:

☒ Emissions are not evaluated

(7.4.1.10) Explain why this source is excluded

MPC referenced CDP's C7.8 question-level guidance, which notes that all high-impact sectors should refer to the "CDP Technical Note: Relevance of Scope 3 Categories by Sector" (CDP, June 2024). MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identifies category 11 "Use of sold products" and category 1 "Purchased goods and services" as the relevant and most significant Scope 3 categories for the oil & gas sector based on a review of literature and analysis of CDP 2021 data. This 2021 CDP data show that Scope 3 category 11 "Use of sold products" comprised 91% of total oil & gas sector scope 3 emissions and Scope 3 category 1 "Purchased goods and services" comprised 4% of total oil & gas sector scope 3 emissions. All other scope 3 categories, are thereby estimated to be a small contribution to the overall Scope 3 footprint and considered not relevant. In addition, much of the emissions from the other categories are duplicative to Category 11 because they include emissions from the use of the products produced by MPC's refineries.

[Add row]

(7.5) Provide your base year and base year emissions.

Scope 1

(7.5.1) Base year end

12/31/2014

(7.5.2) Base year emissions (metric tons CO₂e)

35000000

(7.5.3) Methodological details

Scope 1 direct GHG emissions include those from Refining, Midstream and other and are typically calculated per the EPA's Mandatory Greenhouse Gas Reporting Program or the 2009 API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry. Global Warming Potentials used are from Table A-1 to Subpart A of 40 CFR Part 98 as of the year they were reported. It includes emissions from fuel combustion, company vehicles and fugitive emissions. Inclusive of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and sulfur hexafluoride (SF₆). Nitrogen trifluoride (NF₃), hydrofluorocarbons (HFC), and perfluorocarbons (PFC) emissions are considered to not be significant to our operations and are therefore excluded. The GHG calculation methodologies and reporting procedures are consistent with those provided in the World Resources Institute / World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol, API GHG Compendium and federal reporting regulations. Furthermore, LRQA was commissioned to provide independent assurance of MPCs Scope 1 direct GHG emissions inventory for the calendar year 2014 (base year). Rounded to the nearest 0.1 million.

Scope 2 (location-based)

(7.5.1) Base year end

12/31/2014

(7.5.2) Base year emissions (metric tons CO2e)

7100000.0

(7.5.3) Methodological details

Scope 2 emissions estimates from purchased electricity are calculated from purchasing records in conjunction with EPA's most current Emissions & Generation Resource Integrated Database (eGRID) factors. Scope 2 emissions from purchased steam will be calculated per the API GHG compendium Section 7.1.5 if emissions data is not provided by the 3rd party supplying the steam. Inclusive of carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). Rounded to the nearest 0.1 million. The GHG calculation methodologies and reporting procedures are consistent with those provided in the World Resources Institute / World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol, and the API GHG Compendium. Furthermore, LRQA was commissioned to provide independent assurance of MPCs Scope 2 direct GHG emissions inventory for the calendar year 2014 (base year).

Scope 2 (market-based)

(7.5.1) Base year end

12/31/2014

(7.5.2) Base year emissions (metric tons CO2e)

7100000.0

(7.5.3) Methodological details

Per the flowchart on page 45 of the GHG Protocol Scope 2 Guidance, MPC uses location-based emission factors to calculate the market-based Scope 2 emissions, which results in the market-based Scope 2 total being the same as the location-based total.

Scope 3 category 1: Purchased goods and services

(7.5.1) Base year end

12/31/2019

(7.5.2) Base year emissions (metric tons CO2e)

65000000.0

(7.5.3) Methodological details

For MPC, the most significant emissions from purchased goods and services are from purchased crude oil, other purchased feedstocks (e.g., gasoil), and purchased hydrogen. Various sources were used to estimate emissions. Masnadi et al. (2018) estimated the global upstream average carbon intensity of crude oil to be 10.3 gCO2e/MJ. Of this, MPC estimated that 1.3 gCO2e/MJ are attributed to transportation and distribution. MPC applied the remaining 9.0 gCO2e/MJ to the quantity of crude purchased to estimate the emissions associated with purchased crude. MPC also purchases non-crude feedstocks such as gasoil. It was assumed these had the same emissions associated with crude oil production plus some additional emissions from partial processing at a 3rd-party refinery. MPC used the median normalized emissions from steam methane reformer hydrogen production of 75 g CO2/MJ hydrogen identified by Sun and Elgowainy (2019) when calculating emissions associated with purchased hydrogen. The estimate has been rounded to the nearest million.

Scope 3 category 11: Use of sold products

(7.5.1) Base year end

12/31/2019

(7.5.2) Base year emissions (metric tons CO2e)

426000000.0

(7.5.3) Methodological details

MPC estimates emissions from third-party use of sold products in alignment with methods in Category 11 of IPIECA's Estimating Petroleum Industry Value Chain (Scope 3) Greenhouse Gas Emissions (2016). Emission estimates are based on refinery yields as stated in MPC's Annual Report on Form 10-K, emission factors from EPA's GHG Emission Factors Hub at the EPA Center for Corporate Climate Leadership, and storage factors derived from Table 3-24 and Annex 2 of EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks. Rounded to the nearest million.

[Fixed row]

(7.6) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

(7.6.1) Gross global Scope 1 emissions (metric tons CO2e)

33000000

(7.6.3) Methodological details

Scope 1 direct GHG emissions include those from Refining, Midstream and other and are typically calculated per the EPA's Mandatory Greenhouse Gas Reporting Program or the 2009 API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry. Global Warming Potentials used are from Table A-1 to Subpart A of 40 CFR Part 98 as of the year they were reported. It includes emissions from fuel combustion, company vehicles and fugitive emissions. Inclusive of carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O) and sulfur hexafluoride (SF6). Nitrogen trifluoride (NF3), hydrofluorocarbons (HFC), and perfluorocarbons (PFC) emissions are considered to not be significant to our operations and are therefore excluded. Rounded to the nearest 0.1 million. The GHG calculation methodologies and reporting procedures are consistent with those provided in the World Resources Institute / World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol, API GHG Compendium and federal reporting regulations. Furthermore, LRQA was commissioned to provide independent assurance of MPCs Scope 1 direct GHG emissions inventory for the calendar year 2023.

[Fixed row]

(7.7) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

6800000

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

6800000

(7.7.4) Methodological details

Per the scope 2 accounting methods determination flow chart in figure 6.1 of the GHG Protocol Scope 2 Guidance (WRI/WBCSD, 2015, pg. 45), MPC uses location-based emission factors to calculate the market-based Scope 2 emissions, which renders our market-based scope 2 total the same as our location-based total. Scope 2 emissions include indirect GHG emissions from consumption of purchased electricity, heat or steam. Scope 2 emissions estimates from purchased electricity are calculated from purchasing records in conjunction with EPA's most current Emissions & Generation Resource Integrated Database (eGRID) factors. Scope 2

emissions from purchased steam will be calculated per the API GHG compendium Section 7.1.5 if emissions data is not provided by the 3rd party supplying the steam. Inclusive of carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Rounded to the nearest 0.1 million.
[Fixed row]

(7.8) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

(7.8.1) Evaluation status

Select from:

☒ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO₂e)

61000000

(7.8.3) Emissions calculation methodology

Select all that apply

☒ Average data method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised an estimated 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised an estimated 4% of total oil & gas sector scope 3 emissions. For MPC, the most significant emissions from purchased goods and services are from purchased crude oil, other purchased feedstocks (e.g., gasoil), and purchased hydrogen. Various sources were used to estimate emissions. Masnadi et al. (2018) estimated the global upstream average carbon intensity of crude oil to be 10.3 gCO₂e/MJ. Of this, MPC estimated that 1.3 gCO₂e/MJ are attributed to transportation

and distribution. MPC applied the remaining 9.0 gCO₂e/MJ to the quantity of crude purchased to estimate the emissions associated with purchased crude. MPC also purchases non-crude feedstocks such as gasoil. It was assumed these had the same emissions associated with crude oil production plus some additional emissions from partial processing at a 3rd-party refinery. MPC used the median normalized emissions from steam methane reformer hydrogen production of 75 g CO₂/MJ hydrogen identified by Sun and Elgowainy (2019) when calculating emissions associated with purchased hydrogen. The estimate has been rounded to the nearest million.

Capital goods

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including capital goods, are thus estimated to be a small contribution to the overall Scope 3 footprint and considered not relevant. In addition, much of the emissions from the other categories are duplicative to Category 11 because they include emissions from the use of the products produced by MPC's refineries.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including fuel-and-energy related activities not included in scope 1 or 2, are estimated to be a small

contribution to the overall Scope 3 footprint. In addition, much of the emissions from the other categories are duplicative to Category 11 because they include emissions from the use of the products produced by MPC's refineries.

Upstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including upstream transportation and distribution, are estimated to be a small contribution to the overall Scope 3 footprint. In addition, much of the emissions from the other categories are duplicative to Category 11 because they include emissions from the use of the products produced by MPC's refineries. For example, the scope 3 category 11 use of sold product GHG emissions from diesel fuel and marine fuel sold by MPC is inherently larger than and duplicative with the scope 3 upstream transport and distribution emissions that occur from feedstocks being shipped to MPC's refineries.

Waste generated in operations

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including waste generated in operations, are estimated to be a small contribution to the overall Scope 3 footprint.

Business travel

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including business travel, are estimated to be a small contribution to the overall Scope 3 footprint. In addition, much of the emissions from the other categories are duplicative to Category 11 because they include emissions from the use of the products produced by MPC's refineries. For example, the scope 3 category 11 use of sold product GHG emissions from jet fuel sold by MPC is inherently larger than and duplicative with the scope 3 business travel emissions that occur when MPC employees fly commercially.

Employee commuting

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including employee commuting, are estimated to be a small contribution to the overall Scope 3 footprint. In addition, much of the emissions from the other categories are duplicative to Category 11 because they include emissions from the use of the products produced by MPC's refineries. For example, the scope 3 category 11 use of sold product GHG emissions from gasoline and diesel produced at MPC's refineries is inherently larger than and duplicative with the scope 3 employee commuting emissions that occur when MPC employees use a gasoline or diesel powered vehicle to commute to work.

Upstream leased assets

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including upstream leased assets, are estimated to be a small contribution to the overall Scope 3 footprint.

Downstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including downstream transportation and distribution, are estimated to be a small contribution to the overall Scope 3 footprint. In addition, much of the emissions from the other categories are duplicative to Category 11 because they include emissions from the use of the products produced by MPC's refineries. For example, the scope 3 category 11 use of sold product GHG emissions from diesel fuel and marine fuel sold by MPC is inherently larger than and duplicative with the scope 3 downstream transport and distribution emissions that occur when finished products from MPC's refineries are shipped to end users.

Processing of sold products

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including processing of sold products, are estimated to be a small contribution to the overall Scope 3 footprint.

Use of sold products

(7.8.1) Evaluation status

Select from:

☒ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO₂e)

400000000

(7.8.3) Emissions calculation methodology

Select all that apply

☒ Fuel-based method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. MPC estimates emissions from third-party use of sold products in alignment with methods in Category 11 of IPIECA's Estimating Petroleum Industry Value Chain (Scope 3) Greenhouse Gas Emissions (2016). Emission estimates are based on refinery yields as stated in MPC's Annual Report on Form 10-K, emission factors from EPA's GHG Emission Factors Hub at the EPA Center for Corporate Climate Leadership, and storage factors derived from Table 3-24 and Annex 2 of EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks. Rounded to the nearest million.

End of life treatment of sold products

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including end of life treatment of sold products, are estimated to be a small contribution to the overall Scope 3 footprint.

Downstream leased assets

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021

data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including downstream leased assets, are estimated to be a small contribution to the overall Scope 3 footprint.

Franchises

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including franchises, are estimated to be a small contribution to the overall Scope 3 footprint.

Investments

(7.8.1) Evaluation status

Select from:

☒ Not relevant, explanation provided

(7.8.5) Please explain

MPC referenced CDP's question-level guidance, which notes that all high-impact sectors should refer to CDP's Technical Note on the relevance of Scope 3 categories by sector. MPC is in the oil & gas sector, which is considered a high-impact sector. CDP's Technical Note on the relevance of Scope 3 categories by sector identify category 11 use of sold products and category 1 purchased goods and services to be the relevant categories for the oil & gas sector. For CDP 2021 data, category 11 use of sold products comprised 91% of total oil & gas sector scope 3 emissions and category 1 purchased goods and services comprised 4% of total oil & gas sector scope 3 emissions. All other categories, including investments, are estimated to be a small contribution to the overall Scope 3 footprint.

[Fixed row]

(7.9) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Select from: ☒ Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Select from: ☒ Third-party verification or assurance process in place
Scope 3	Select from: ☒ Third-party verification or assurance process in place

[Fixed row]

(7.9.1) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Row 1

(7.9.1.1) Verification or assurance cycle in place

Select from:

☒ Annual process

(7.9.1.2) Status in the current reporting year

Select from:

☒ Complete

(7.9.1.3) Type of verification or assurance

Select from:

☒ Limited assurance

(7.9.1.4) Attach the statement

Marathon CY23 - Assurance Statement.pdf

(7.9.1.5) Page/section reference

The independent assurance statement that contains details of our verification/assurance of Scope 1 GHG emissions is attached and also available online at https://www.marathonpetroleum.com/content/documents/Responsibility/Reports_Policies/2024/2023_LRQA_Assurance_Statement.pdf The relevant information begins on page 1 and the section is not applicable. The table of verified GHG emissions is on page 2.

(7.9.1.6) Relevant standard

Select from:

☒ ISO14064-3

(7.9.1.7) Proportion of reported emissions verified (%)

100

[Add row]

(7.9.2) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Row 1

(7.9.2.1) Scope 2 approach

Select from:

☒ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:

☒ Annual process

(7.9.2.3) Status in the current reporting year

Select from:

☒ Complete

(7.9.2.4) Type of verification or assurance

Select from:

☒ Limited assurance

(7.9.2.5) Attach the statement

Marathon CY23 - Assurance Statement.pdf

(7.9.2.6) Page/ section reference

The independent assurance statement that contains details of our verification/assurance of Scope 2 GHG emissions is attached and also available online at https://www.marathonpetroleum.com/content/documents/Responsibility/Reports_Policies/2024/2023_LRQA_Assurance_Statement.pdf The relevant information begins on page 1 and the section is not applicable. The table of verified GHG emissions is on page 2.

(7.9.2.7) Relevant standard

Select from:

☒ ISO14064-3

(7.9.2.8) Proportion of reported emissions verified (%)

100
[Add row]

(7.9.3) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Row 1

(7.9.3.1) Scope 3 category

Select all that apply

☒ Scope 3: Use of sold products

(7.9.3.2) Verification or assurance cycle in place

Select from:

☒ Annual process

(7.9.3.3) Status in the current reporting year

Select from:

☒ Complete

(7.9.3.4) Type of verification or assurance

Select from:

☒ Limited assurance

(7.9.3.5) Attach the statement

Marathon CY23 - Assurance Statement.pdf

(7.9.3.6) Page/section reference

The independent assurance statement that contains details of our verification/assurance of Scope 3 GHG emissions is attached and also available online at https://www.marathonpetroleum.com/content/documents/Responsibility/Reports_Policies/2024/2023_LRQA_Assurance_Statement.pdf The relevant information begins on page 1 and the section is not applicable. The table of verified GHG emissions is on page 2.

(7.9.3.7) Relevant standard

Select from:

☒ ISO14064-3

(7.9.3.8) Proportion of reported emissions verified (%)

100

[Add row]

(7.10) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Select from:

☒ Decreased

(7.10.1) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

Change in renewable energy consumption

(7.10.1.1) Change in emissions (metric tons CO2e)

262537

(7.10.1.2) Direction of change in emissions

Select from:

☒ Decreased

(7.10.1.3) Emissions value (percentage)

0.65

(7.10.1.4) Please explain calculation

Estimate. MPC's operations are in the United States and we thus use location-based factors derived from EPA's eGRID. The updated eGRID values used for operating year 2023 vs 2022 electricity usage caused scope 2 emissions to decrease. The calculation was performed by taking the difference of 2023 scope 2 GHG emissions using the old vs new eGRID factors.

Other emissions reduction activities

(7.10.1.1) Change in emissions (metric tons CO2e)

285046

(7.10.1.2) Direction of change in emissions

Select from:

☒ Increased

(7.10.1.3) Emissions value (percentage)

0.71

(7.10.1.4) Please explain calculation

Estimate. The calculation was performed by comparing the scope 1 and 2 GHG emissions of our Focus on Energy program between 2022 and 2023. Emissions were estimated using the EPA Greenhouse Gas Equivalencies Calculator, available at <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>. These estimations are approximated using the EPA calculator for illustrative purposes; these estimated emissions are not reflected in our reported emissions inventory.

Divestment

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

No significant divestments in 2023.

Acquisitions

(7.10.1.1) Change in emissions (metric tons CO₂e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

No significant acquisitions in 2023.

Mergers

(7.10.1.1) Change in emissions (metric tons CO₂e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

No significant mergers in 2023.

Change in output

(7.10.1.1) Change in emissions (metric tons CO2e)

467652

(7.10.1.2) Direction of change in emissions

Select from:

☒ Decreased

(7.10.1.3) Emissions value (percentage)

1.16

(7.10.1.4) Please explain calculation

Estimate. It was assumed that the remainder of the emissions change that was not accounted for via change in renewable energy consumption (i.e. updated eGRID emission factors), other emissions activities, or boundary changes, was due to changes in production. Our MPLX gathering & processing gas plant throughputs were approximately 6% higher in 2023 relative to 2022; our gas processing complexes had a capacity utilization rate of 74% in 2023 vs 71% in 2022. Our sites generally operate more efficiently at higher utilization rates. This was slightly offset by the decrease in MPC's refinery production which decreased approximately 1% in 2023 relative to 2022. This reflects a return to normal crude oil capacity utilization of 92% in 2023, vs. 96% in 2022 which was up primarily due to continuing recovery in demand for products post covid.

Change in methodology

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

No significant changes in methodology in 2023.

Change in boundary

(7.10.1.1) Change in emissions (metric tons CO2e)

154858

(7.10.1.2) Direction of change in emissions

Select from:

☒ Decreased

(7.10.1.3) Emissions value (percentage)

0.38

(7.10.1.4) Please explain calculation

In 2020, the Martinez petroleum refinery was closed and set to be strategically repositioned as a renewable fuels facility. The facility became co-owned through our Martinez Renewable Joint venture in 4Q 2022 and began producing renewable fuels in 2023. This facility is now under the operational control of the Joint Venture.

Change in physical operating conditions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Estimate; no identified change.

Unidentified

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Estimate; no identified change.

Other

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☒ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Estimate; no identified change.

[Fixed row]

(7.10.2) Are your emissions performance calculations in 7.10 and 7.10.1 based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Select from:

☒ Location-based

(7.12) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Select from:

☒ Yes

(7.12.1) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
	80000	Estimated direct biogenic CO2 emissions, rounded to the nearest 0.01 million.

[Fixed row]

(7.15) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Select from:

☒ Yes

(7.15.1) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used global warming potential (GWP).

Row 1

(7.15.1.1) Greenhouse gas

Select from:

☒ CO2

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

32390115

(7.15.1.3) GWP Reference

Select from:

☒ IPCC Fourth Assessment Report (AR4 - 100 year)

Row 2

(7.15.1.1) Greenhouse gas

Select from:

☒ CH4

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

538862

(7.15.1.3) GWP Reference

Select from:

☒ IPCC Fourth Assessment Report (AR4 - 100 year)

Row 3

(7.15.1.1) Greenhouse gas

Select from:

☒ N2O

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

63358

(7.15.1.3) GWP Reference

Select from:

☒ IPCC Fourth Assessment Report (AR4 - 100 year)

Row 4

(7.15.1.1) Greenhouse gas

Select from:

☒ SF6

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

7665

(7.15.1.3) GWP Reference

Select from:

☒ IPCC Fourth Assessment Report (AR4 - 100 year)

[Add row]

(7.15.4) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

Row 1

(7.15.4.1) Emissions category

Select from:

☒ Combustion (excluding flaring)

(7.15.4.2) Value chain

Select all that apply

☒ Downstream

(7.15.4.3) Product

Select from:

☒ Oil

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

19236792

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

852

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

19305431

(7.15.4.7) Comment

Note that this includes combustion emissions associated with onsite cogeneration located at some of MPC's refineries. In some instances, the cogeneration facilities support both an MPC refinery and a third-party facility. This can make the scope 1 combustion emissions appear higher than a facility that does not have a cogeneration facility and instead imports electricity and steam from a third party. Rounded for consistency with the total scope 1 reported. Generally inclusive of emissions that would be calculated per 40 CFR Part 98 Subparts C and D.

Row 2

(7.15.4.1) Emissions category

Select from:

☒ Flaring

(7.15.4.2) Value chain

Select all that apply

☒ Downstream

(7.15.4.3) Product

Select from:

☒ Oil

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

621799

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

2551

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

687679

(7.15.4.7) Comment

Generally inclusive of flaring emissions that would have been calculated per 40 CFR Part 98 Subpart Y. Rounded for consistency with the total scope 1 reported.

Row 3

(7.15.4.1) Emissions category

Select from:

☒ Fugitives

(7.15.4.2) Value chain

Select all that apply

☒ Downstream

(7.15.4.3) Product

Select from:

☒ Oil

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

6504534

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

1291

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

6547338

(7.15.4.7) Comment

Generally inclusive of emissions that would have been calculated per 40 CFR Part 98 Subpart Y (fugitives and process emissions), excluding flaring. Rounded for consistency with the total scope 1 reported.

Row 4

(7.15.4.1) Emissions category

Select from:

☒ Other (please specify) :Includes combustion (excluding flaring and emissions from the logistics and

(7.15.4.2) Value chain

Select all that apply

☒ Downstream

(7.15.4.3) Product

Select from:

☒ Oil

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

1127575

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

1127575

(7.15.4.7) Comment

Generally inclusive of emissions from hydrogen production via onsite steam methane reformer and typically calculated as per 40 CFR Part 98 Subpart P. Rounded for consistency with the total scope 1 reported.

Row 5

(7.15.4.1) Emissions category

Select from:

☒ Other (please specify) :Combustion (excluding flaring) and emissions from logistics and storage segment (e.g., barge emissions from operating our marine fleet)

(7.15.4.2) Value chain

Select all that apply

☒ Midstream

(7.15.4.3) Product

Select from:

☒ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

4665476

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

280

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

4675577

(7.15.4.7) Comment

Generally inclusive of midstream emissions calculated per 40 CFR Part 98 Subpart C plus all emissions from the logistics and storage segment (e.g., barge emissions from operating our marine fleet). Rounded for consistency with total scope 1 emissions reported.

Row 6

(7.15.4.1) Emissions category

Select from:

☒ Other (please specify) :Flaring, venting, and fugitives

(7.15.4.2) Value chain

Select all that apply

☒ Midstream

(7.15.4.3) Product

Select from:

☒ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

333514

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

749541

(7.15.4.7) Comment

Generally inclusive of midstream emissions calculated per 40 CFR Part 98 Subpart W. Rounded for consistency with total scope 1 emissions reported.
[Add row]

(7.16) Break down your total gross global Scope 1 and 2 emissions by country/area.

	Scope 1 emissions (metric tons CO2e)	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
United States of America	33000000	6800000	6800000

[Fixed row]

(7.17) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

Select all that apply
☒ By business division

(7.17.1) Break down your total gross global Scope 1 emissions by business division.

	Business division	Scope 1 emissions (metric ton CO2e)
Row 1	<i>Refining (rounded for consistency with total scope 1 reported)</i>	27566203
Row 2	<i>Midstream (MPLX) - Gathering and Processing (rounded for consistency with total scope 1 reported)</i>	5119071
Row 3	<i>Midstream (MPLX) - Logistics & Storage (rounded for consistency with total scope 1 reported)</i>	306047
Row 5	<i>Admin (rounded for consistency with total Scope 2 reported)</i>	8679

[Add row]

(7.19) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

Oil and gas production activities (midstream)

(7.19.1) Gross Scope 1 emissions, metric tons CO2e

5425117

(7.19.2) Net Scope 1 emissions , metric tons CO2e

5425117

(7.19.3) Comment

Includes MPLX's Gathering & Processing and Logistics & Storage segment; rounded for consistency with total scope 1 reported.

Oil and gas production activities (downstream)

(7.19.1) Gross Scope 1 emissions, metric tons CO2e

27566203

(7.19.2) Net Scope 1 emissions , metric tons CO2e

27566203

(7.19.3) Comment

Includes Refining segment; rounded for consistency with total scope 1 reported. Note that this also includes emissions associated with cogeneration facilities located onsite at some refineries.

[Fixed row]

(7.20) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

Select all that apply

☒ By business division

(7.20.1) Break down your total gross global Scope 2 emissions by business division.

	Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Row 1	<i>Refining (rounded for consistency with total scope 1 reported)</i>	3421833	3421833
Row 2	<i>Midstream (MPLX) - Gathering and Processing (rounded for consistency with total Scope 2 reported)</i>	2858162	2858162
Row 3	<i>Midstream (MPLX) - Logistics and Storage (rounded for consistency with total Scope 2 reported).</i>	511788	511788
Row 5	<i>Admin (rounded for consistency with total scope 1 reported).</i>	8217	8217

[Add row]

(7.21) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Oil and gas production activities (upstream)	0	0	<i>MPC and MPLX do not operate in the upstream segment.</i>
Oil and gas production activities (midstream)	3369950	3369950	<i>Includes MPLX's Gathering & Processing and Logistics & Storage segment; rounded for consistency with total scope 1 reported.</i>
Oil and gas production activities (downstream)	3421833	3421833	<i>Includes Refining segment; rounded for consistency with total scope 1 reported.</i>

[Fixed row]

(7.23) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Select from:

☒ No

(7.24) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Row 1

(7.24.1) Oil and gas business division

Select all that apply

☒ Midstream

(7.24.2) Estimated total methane emitted expressed as % of natural gas production or throughput at given division

0.016

(7.24.3) Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division

0.014

(7.24.4) Indicate whether your methane emissions figure is based on observational data

Select from:

☒ Estimated or modelled data only

(7.24.5) Details of methodology

Estimated total methane emitted expressed as % of natural gas production or throughput at given division represents the MPLX G&P methane emissions divided by MPLX G&P natural gas gathered and natural gas processed. Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division is the same but also adds NGL throughput at the gas plants converted to a natural gas equivalent at 1,026 Btu per scf of natural gas.

[Add row]

(7.27) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Row 1

(7.27.1) Allocation challenges

Select from:

☒ Other, please specify :Lack of a developed protocol for allocating Scope 1 & 2 GHG emissions from various refinery process units and/or configurations to specific products.

(7.27.2) Please explain what would help you overcome these challenges

An industry-specific protocol needs to be developed so that accurate accounting and comparison between companies can be accomplished.

[Add row]

(7.28) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

	Do you plan to develop your capabilities to allocate emissions to your customers in the future?	Describe how you plan to develop your capabilities
	Select from: ☒ Yes	Work with internal and/or external resources to develop refinery-specific allocation process.

[Fixed row]

(7.29) What percentage of your total operational spend in the reporting year was on energy?

Select from:

☒ More than 40% but less than or equal to 45%

(7.30) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Select from: ☒ Yes
Consumption of purchased or acquired electricity	Select from: ☒ Yes
Consumption of purchased or acquired heat	Select from:

	Indicate whether your organization undertook this energy-related activity in the reporting year
	☒ No
Consumption of purchased or acquired steam	Select from: ☒ Yes
Consumption of purchased or acquired cooling	Select from: ☒ No
Generation of electricity, heat, steam, or cooling	Select from: ☒ Yes

[Fixed row]

(7.30.1) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

Consumption of fuel (excluding feedstock)

(7.30.1.1) Heating value

Select from:

☒ HHV (higher heating value)

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

152850000

(7.30.1.4) Total (renewable and non-renewable) MWh

152850000

Consumption of purchased or acquired electricity

(7.30.1.1) Heating value

Select from:

☒ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

1970000

(7.30.1.3) MWh from non-renewable sources

12520000

(7.30.1.4) Total (renewable and non-renewable) MWh

14490000

Consumption of purchased or acquired steam

(7.30.1.1) Heating value

Select from:

☒ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

2020000

(7.30.1.4) Total (renewable and non-renewable) MWh

2020000

Consumption of self-generated non-fuel renewable energy

(7.30.1.1) Heating value

Select from:

☒ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

0

(7.30.1.4) Total (renewable and non-renewable) MWh

0

Total energy consumption

(7.30.1.1) Heating value

Select from:

☒ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

1970000

(7.30.1.3) MWh from non-renewable sources

167390000

(7.30.1.4) Total (renewable and non-renewable) MWh

169360000

[Fixed row]

(7.30.6) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Select from: ☒ No
Consumption of fuel for the generation of heat	Select from: ☒ Yes
Consumption of fuel for the generation of steam	Select from: ☒ Yes
Consumption of fuel for the generation of cooling	Select from: ☒ No
Consumption of fuel for co-generation or tri-generation	Select from: ☒ Yes

[Fixed row]

(7.30.7) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**Sustainable biomass****(7.30.7.1) Heating value**

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

There is a small amount of biomass energy consumed at our renewable facility in Dickinson, but this quantity is currently de minimis relative to overall company-wide energy consumption (

Other biomass

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Not Applicable

Other renewable fuels (e.g. renewable hydrogen)

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Not Applicable

Coal

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Not Applicable

Oil

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

850616

(7.30.7.4) MWh fuel consumed for self-generation of heat

850616

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Estimates. Includes diesel fuel, jet fuel, etc.

Gas

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

131555683

(7.30.7.4) MWh fuel consumed for self-generation of heat

83314479

(7.30.7.5) MWh fuel consumed for self-generation of steam

23525099

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

24716105

(7.30.7.8) Comment

Estimates. Includes natural gas, refinery fuel gas, etc.

Other non-renewable fuels (e.g. non-renewable hydrogen)

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

20443701

(7.30.7.4) MWh fuel consumed for self-generation of heat

20443701

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Estimates. Include FCC catalyst coke, propane, etc.

Total fuel

(7.30.7.1) Heating value

Select from:

☒ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

152850000

(7.30.7.4) MWh fuel consumed for self-generation of heat

104608796

(7.30.7.5) MWh fuel consumed for self-generation of steam

23525099

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

24716105

(7.30.7.8) Comment

*Estimates.
[Fixed row]*

(7.30.9) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

Electricity

(7.30.9.1) Total Gross generation (MWh)

7090000

(7.30.9.2) Generation that is consumed by the organization (MWh)

3360000

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Heat

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Steam

(7.30.9.1) Total Gross generation (MWh)

29260000

(7.30.9.2) Generation that is consumed by the organization (MWh)

29260000

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Cooling

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

[Fixed row]

(7.30.14) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in 7.7.

Row 1

(7.30.14.1) Country/area

Select from:

☒ United States of America

(7.30.14.2) Sourcing method

Select from:

☒ Purchase from an on-site installation owned by a third party (on-site PPA)

(7.30.14.3) Energy carrier

Select from:

☒ Electricity

(7.30.14.4) Low-carbon technology type

Select from:

☒ Wind

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

2.92

(7.30.14.6) Tracking instrument used

Select from:

☒ US-REC

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:

☒ United States of America

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:

☒ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2015

(7.30.14.10) Comment

Note that this quantity of low-carbon electricity purchase is not large enough to cause a difference in the rounded scope 2 location-based and scope 2 market-based figures.

[Add row]

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

United States of America

(7.30.16.1) Consumption of purchased electricity (MWh)

14490000

(7.30.16.2) Consumption of self-generated electricity (MWh)

3360000

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

2020000

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

29260000

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

49130000.00

[Fixed row]

(7.43) Disclose your total refinery throughput capacity in the reporting year in thousand barrels per day.

	Total refinery throughput capacity (Thousand barrels per day)
Capacity	2950

[Fixed row]

(7.43.1) Disclose feedstocks processed in the reporting year in million barrels per year.

	Throughput (Million barrels)	Comment
Oil	977	See page 52 of MPC 2023 Form 10-K
Other feedstocks	87	See page 52 of MPC 2023 Form 10-K
Total	1064	See page 52 of MPC 2023 Form 10-K

[Fixed row]

(7.43.2) Are you able to break down your refinery products and net production?

Select from:

☒ Yes

(7.43.3) Disclose your refinery products and net production in the reporting year in million barrels per year.

Row 1

(7.43.3.1) Product produced

Select from:

☒ Gasolines

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

557

Row 2

(7.43.3.1) Product produced

Select from:

☒ Other, please specify :Distillates (including renewable production)

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

382

Row 3

(7.43.3.1) Product produced

Select from:

☒ Other, please specify :NGLs and petrochemicals (including renewable production)

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

24

Row 4

(7.43.3.1) Product produced

Select from:

☒ Asphalt and tar

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

66

Row 5

(7.43.3.1) Product produced

Select from:

☒ Other, please specify :Propane

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

19

Row 6

(7.43.3.1) Product produced

Select from:

☒ Fuel oils

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

29

[Add row]

(7.45) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Row 1

(7.45.1) Intensity figure

0.00026

(7.45.2) Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

39800000

(7.45.3) Metric denominator

Select from:

☒ unit total revenue

(7.45.4) Metric denominator: Unit total

150307000000

(7.45.5) Scope 2 figure used

Select from:

☒ Location-based

(7.45.6) % change from previous year

18

(7.45.7) Direction of change

Select from:

☒ Increased

(7.45.8) Reasons for change

Select all that apply

- ☒ Other emissions reduction activities
- ☒ Change in output
- ☒ Change in revenue

(7.45.9) Please explain

The scope 1 and 2 intensity per total revenue increased in 2023 compared to 2022. The reason for the increase in intensity is that total revenue decreased due to decreased sales and other operating revenues primarily due to decreased average refined product sales prices. Volatility in commodity prices is a key reason that intensity metrics based on revenue do not allow for consistent and comparable data for companies in commodity-based industries - the metric is more impacted by commodity prices outside of the company's control than the company's GHG emissions. MPC's scope 1 and 2 emissions decreased by about 2%, but the approximate 16% decrease in revenue was the main reason the intensity metric increased by about 18%.

[Add row]

(7.48) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Row 1

(7.48.1) Unit of hydrocarbon category (denominator)

Select from:

- ☒ Thousand barrels of refinery throughput

(7.48.2) Metric tons CO2e from hydrocarbon category per unit specified

25.92

(7.48.3) % change from previous year

1

(7.48.4) Direction of change

Select from:

☒ Decreased

(7.48.5) Reason for change

Refining scope 1 intensity per thousand barrels of refinery throughput decreased 1% in 2023 relative to 2022. The majority of the emissions change was due to changes in production which decreased approximately 1% in 2023 relative to 2022. This can be attributed to maintenance activity which reduced throughput at some of our more processing-intensive units. Furthermore, in 2020, the Martinez petroleum refinery was closed and set to be strategically repositioned as a renewable fuels facility. The facility became co-owned through our Martinez Renewable Joint venture in 4Q 2022 and began producing renewable fuels in 2023. This facility is now under the operational control of the Joint Venture.

(7.48.6) Comment

Not applicable.
[Add row]

(7.53) Did you have an emissions target that was active in the reporting year?

Select all that apply

☒ Absolute target

☒ Intensity target

(7.53.1) Provide details of your absolute emissions targets and progress made against those targets.

Row 1

(7.53.1.1) Target reference number

Select from:

☒ Abs 1

(7.53.1.2) Is this a science-based target?

Select from:

☒ No, and we do not anticipate setting one in the next two years

(7.53.1.5) Date target was set

02/14/2022

(7.53.1.6) Target coverage

Select from:

☒ Product level

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

☒ Carbon dioxide (CO2)

☒ Methane (CH4)

☒ Nitrous oxide (N2O)

(7.53.1.8) Scopes

Select all that apply

☒ Scope 3

(7.53.1.10) Scope 3 categories

Select all that apply

☒ Scope 3, Category 11 – Use of sold products

(7.53.1.11) End date of base year

12/31/2019

(7.53.1.24) Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

426000000

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

426000000.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

426000000.000

(7.53.1.45) Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

100

(7.53.1.52) Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/31/2030

(7.53.1.55) Targeted reduction from base year (%)

15

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

362100000.000

(7.53.1.69) Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

400000000

(7.53.1.76) Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

400000000.000

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

400000000.000

(7.53.1.78) Land-related emissions covered by target

Select from:

☒ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

40.69

(7.53.1.80) Target status in reporting year

Select from:

☒ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

In 2022, we established an absolute 15% reduction target for scope 3 – category 11 GHG emissions by 2030 from 2019 levels. To date, MPC is the only large downstream company to establish an absolute scope 3 target. This target entails the end-use (i.e., scope 3) GHG emissions from customers who use the products we manufacture, own and market. The boundaries we selected for our target are based upon criteria provided in draft guidance from the Science-Based Targets initiative (SBTi) for the Oil and Gas Sector 1, which recommends: -A target baseline within the five-year period prior to establishing the target -Absolute targets are preferred - Target(s) should be based upon the company's operational segment with the highest scope 3 emissions among: 1) Exploration and production, 2) Refined product yields, or 3) Marketing -A scope 3 target should be consolidated by equity share and entail at least 67% of all categories of scope 3 emissions. As documented in our CDP disclosures, MPC's scope 3 – category 11 emissions entail more than 70% of our total calculated scope 3 emissions. Our refinery yields were selected as the basis for our target because they represented the largest scope 3 – category 11 emissions of the three operational segments within the oil and gas sector.

(7.53.1.83) Target objective

MPC's value chain target helps our business strategy consider long-term climate-related market risk.

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

Since 2019 we have achieved a 6% reduction in our refining scope 3 – category 11 emissions. This significant reduction was achieved in part by ceasing crude processing at three petroleum refineries, and repurposing two of them to produce renewable diesel.

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☒ No

[Add row]

(7.53.2) Provide details of your emissions intensity targets and progress made against those targets.

Row 1

(7.53.2.1) Target reference number

Select from:

☒ Int 1

(7.53.2.2) Is this a science-based target?

Select from:

☒ No, and we do not anticipate setting one in the next two years

(7.53.2.5) Date target was set

03/04/2020

(7.53.2.6) Target coverage

Select from:

☒ Organization-wide

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☒ Carbon dioxide (CO₂)

☒ Methane (CH₄)

☒ Nitrous oxide (N₂O)

☒ Sulphur hexafluoride (SF₆)

(7.53.2.8) Scopes

Select all that apply

☒ Scope 1

☒ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:

☒ Location-based

(7.53.2.11) Intensity metric

Select from:

☒ Metric tons CO₂e per barrel of oil equivalent (BOE)

(7.53.2.12) End date of base year

12/31/2014

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)

24.9

(7.53.2.14) Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

5

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

29.9000000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

99

(7.53.2.35) % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

95

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

99

(7.53.2.55) End date of target

12/31/2030

(7.53.2.56) Targeted reduction from base year (%)

30

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

20.9300000000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

-5

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

17.9

(7.53.2.61) Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

3.8

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

21.7000000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☒ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

91.42

(7.53.2.83) Target status in reporting year

Select from:

☒ Underway

(7.53.2.85) Explain target coverage and identify any exclusions

MPC's GHG emissions intensity reductions encompass Scope 1, defined as direct emissions from its operations – such as refineries, trucks, compressors and other equipment – as well as Scope 2, which are indirect emissions resulting from the electricity and steam MPC purchases to support its business activities. These GHG emissions reductions will be measured per BOE because the company uses a variety of feedstocks, including crude oil, natural gas and renewable feedstocks, such as soybean oil. BOE, a unit of measure defined by the U.S. federal government, allows these different throughputs to be measured on a common basis. The target coverage includes MPC's refining business unit and MPLX's Gathering and Processing and Logistics and Storage segment. MPC no longer has a retail segment following the sale of MPC's Speedway business in 2021. Accordingly, such operations are excluded and represent approximately 1% of total Scope 1 & 2 emissions in the baseline year. Emissions associated with electricity that MPC's combined heat and power systems sold to 3rd-parties is also excluded as these emissions are not related to MPC's manufacturing processes. They represented approximately 2.6% of total Scope 1 & 2 emissions in the baseline year. Note that we did not select

"Yes" to "Is this is a science-based target" because all of the "yes" options require approval, review, or seeking validation from the Science Based Targets Initiative (SBTi). We are an oil and gas company and it is impossible for an oil and gas company to select any of the "Yes" options CDP provides since the SBTi states "Currently, the SBTi is unable to accept commitments or validate targets for companies in the oil and gas or fossil fuels sectors."

(7.53.2.86) Target objective

These operational targets incentivizes us to reduce to reduce the impact of our operations on the environment.

(7.53.2.87) Plan for achieving target, and progress made to the end of the reporting year

We have reduced our scope 1 and 2 GHG intensity by 27% in 2023 relative to 2014. To continue to advance our target, we will continue to pursue energy efficiency through our "Focus on Energy" program, which has already helped us become a five-time EPA ENERGY STAR Partner of the Year — Sustained Excellence award recipient. Additionally, our refining business segment has a higher scope 1 and 2 intensity than our natural gas G&P business segment, so continuing to shift our portfolio towards G&P will help advance the target. This could be accomplished with less refining production, refinery divestitures, G&P expansion, petroleum refinery to renewable diesel conversions, etc.

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☒ No

[\[Add row\]](#)

(7.54) Did you have any other climate-related targets that were active in the reporting year?

Select all that apply

☒ Targets to reduce methane emissions

(7.54.2) Provide details of any other climate-related targets, including methane reduction targets.

Row 1

(7.54.2.1) Target reference number

Select from:

☒ Oth 1

(7.54.2.2) Date target was set

10/31/2020

(7.54.2.3) Target coverage

Select from:

☒ Business division

(7.54.2.4) Target type: absolute or intensity

Select from:

☒ Intensity

(7.54.2.5) Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target

☒ Total methane emissions in m3

(7.54.2.6) Target denominator (intensity targets only)

Select from:

☒ Other, please specify :total volumetric natural gas throughput

(7.54.2.7) End date of base year

12/31/2016

(7.54.2.8) Figure or percentage in base year

0.037

(7.54.2.9) End date of target

12/31/2030

(7.54.2.10) Figure or percentage at end of date of target

0.009

(7.54.2.11) Figure or percentage in reporting year

0.016

(7.54.2.12) % of target achieved relative to base year

75.0000000000

(7.54.2.13) Target status in reporting year

Select from:

☒ Underway

(7.54.2.15) Is this target part of an emissions target?

The methane emissions included in "Oth 1," MPLX's methane intensity target, are also covered by the combined MPC/MPLX target ("Int 1") to reduce GHG intensity by 30% by 2030 from 2014. A separate target for MPLX gas gathering and processing was established due the importance of reducing methane emissions; this target will also drive behaviors such as replacing and/or phasing out the use of continuous-bleed pneumatic devices.

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☒ No, it's not part of an overarching initiative

(7.54.2.18) Please explain target coverage and identify any exclusions

This target is a methane intensity target for MPLX's midstream gas gathering and processing segment. It covers Scope 1 methane emissions from this midstream segment, generally calculated per the EPA GHG Reporting Rule. The target was set in 2020 when MPLX's "Focus on Methane" program was launched, which included the establishing a goal to reduce methane emissions intensity at MPLX's natural gas gathering and processing assets by 75% below 2016 levels through 2030.

(7.54.2.19) Target objective

Our operational target incentivizes us to reduce the impact of our operations on the environment.

(7.54.2.20) Plan for achieving target, and progress made to the end of the reporting year

MPLX's methane intensity has decreased 57% in 2023 relative to 2016. To continue reducing methane emissions, MPLX G&P will, for example, focus on eliminating high-bleed pneumatic devices, implementing LDAR at compressor stations, and proactively replacing compressor rod packing. More details can be found in MPC's annual Perspectives on Climate-related Scenarios report available at <https://www.marathonpetroleum.com/Sustainability/Reports-and-Policies/>.

[Add row]

(7.55) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Select from:

☒ Yes

(7.55.1) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	`Numeric input
To be implemented	0	0
Implementation commenced	1	2400000
Implemented	1	1000000
Not to be implemented	0	`Numeric input

[Fixed row]

(7.55.2) Provide details on the initiatives implemented in the reporting year in the table below.

Row 1

(7.55.2.1) Initiative category & Initiative type

Low-carbon energy consumption

☒ Liquid biofuels

(7.55.2.2) Estimated annual CO₂e savings (metric tonnes CO₂e)

1000000

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☒ Scope 3 category 1: Purchased goods & services

☒ Scope 3 category 11: Use of sold products

(7.55.2.4) Voluntary/Mandatory

Select from:

☒ Voluntary

(7.55.2.5) Annual monetary savings (unit currency – as specified in C0.4)

0

(7.55.2.6) Investment required (unit currency – as specified in C0.4)

500000000

(7.55.2.7) Payback period

Select from:

☒ 1-3 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☒ >30 years

(7.55.2.9) Comment

This initiative is MPC's Dickinson renewable diesel facility, which was fully operational in 2022 with continued operations in 2023. We have further enhanced the competitiveness of this operation by extending further into the renewables value chain by entering into a joint venture to construct the first dedicated soybean processing plant in North Dakota. This new, state-of-the-art processing plant began receiving soybeans in late 2023. GHG savings based on high level estimate assuming typical lifecycle GHG intensity of 50 gCO₂e/MJ for renewable diesel and 100 gCO₂e/MJ for petroleum diesel. Lifetime estimated at 30 years assuming there is still demand for renewable diesel beyond 2050. Savings set to zero as this is a biofuel production initiative, not an energy efficiency initiative. MPC uses this project to help comply with the California Low Carbon Fuels standard, but "voluntary" was selected since this specific project was not mandated and MPC could otherwise purchase LCFS credits from other producers. Note: payback period based on slide 37 of MPC's September 2019 investor presentation:

https://s2.q4cdn.com/142437514/files/doc_presentations/2019/09/1/September-2019-Investor-Presentation.pdf

[Add row]

(7.55.3) What methods do you use to drive investment in emissions reduction activities?

Row 1

(7.55.3.1) Method

Select from:

☒ Internal incentives/recognition programs

(7.55.3.2) Comment

The majority of MPC employees have the GHG intensity target ("int 1") linked to their compensation through the Annual Cash Bonus Program. Additionally, MPC refineries have a dedicated Energy Coordinator. Refineries and other assets that achieve ENERGY STAR program are recognized via internal communications (e.g., MPC's Focus on Sustainability newsletter). MPC also sponsors our annual Supplier Recognition Awards that recognize our suppliers for outstanding performance, including performance in sustainability and innovation.

[Add row]

(7.57) Describe your organization's efforts to reduce methane emissions from your activities.

MPLX established a 2025 target to decrease methane emissions intensity by 50% below 2016 levels and a 2030 target to decrease methane emissions intensity by 75% below 2016 levels. Through 2023 we have achieved a 57% intensity reduction. MPLX has six focus areas for methane reductions: 1) Pneumatic control valves: Pneumatic controllers are a source of methane emissions, and eliminating high-bleed pneumatic controllers is an action we have been taking to reduce methane emissions. We estimate that our pneumatic controller efforts have reduced methane emissions by approximately 3,000 tonnes since 2016. We eliminated all of our 340 high-bleed pneumatic controllers from service by the end of 2022. 2) Pipeline Launchers and Receivers: As part of an agreement with U.S. EPA, we developed proprietary technology to minimize emissions from pipeline launchers and receivers. MPLX shared its solutions with nearly 1,000 people via in-person trainings, and our royalty-free patents are available on the MPLX website. 3) Fugitive Leak Detection and Repair (LDAR): All compressor stations not subject to required LDAR inspections perform voluntary monitoring using an OGI camera annually. This voluntary LDAR program is expected to expand into other facility types not covered by EPA's proposed regulations beginning in 2024. 4) Compressor Rod Packing: We are installing monitoring ports and completing periodic monitoring to proactively replace rod packing when warranted. We are also installing low-emission rod packing, where feasible, as rod packing is changed. 5) Maintenance Venting: We are optimizing necessary maintenance venting and blowdowns to reduce emissions going to the atmosphere, including using vapor recovery units and/or portable flares. 6) Advance Measurement and Quantification Technology: Employ advanced monitoring technologies, such as satellite imagery, flyovers and drones, to identify leaks and inform emissions calculations

(7.61) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

Select from:

☒ Yes

(7.61.1) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

Our MPLX natural gas gathering & processing operations are located in the United States and are thus subject to EPA regulation which includes leak detection and repair (LDAR). All of our gas plants have to follow various LDAR requirements in 40 CFR Part 60. For example, the LDAR program at our gas plants generally requires monthly monitoring of pumps, quarterly monitoring of valves, and annual monitoring of connectors. This monitoring is done with a vapor analyzer that detects leaks of methane and volatile organic compounds (VOCs). Repairs are generally required to be made within 15 days with a first attempt at repair made within five days. Note that fixing these leaks addresses methane and other hydrocarbon emissions. We also conduct annual monitoring of our gas plants with optical gas imaging (OGI) cameras. Additionally, over 25% of our natural gas gathering and boosting compressor stations are subject to quarterly LDAR with an OGI camera. All compressor stations not subject to required LDAR inspections perform voluntary monitoring using an OGI camera annually. This voluntary LDAR program is expected to expand into other facility types not covered by EPA's proposed regulations beginning in 2024.

(7.62) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

Flaring is not relevant to MPC in the context of this question. MPC does have flares at its petroleum refineries and natural gas G&P facilities, but emissions from these flares represented less than 3% of MPC's total scope 1 GHG emissions in 2023. The majority of the flare emissions are from flares at MPC's refineries, which are all in the United States and are heavily regulated. MPC has installed flare gas recovery systems at 12 of our currently operating refineries. The multiyear project to install flare gas recovery systems was completed in 2018 and had a total project cost exceeding 500 million and it is estimated that these flare gas recovery systems help avoid over 500,000 tonnes of CO2e on an annual basis. Additionally, much of the focus on reducing flaring in the oil and gas industry is focused on the oil and gas production segment, which MPC does not operate in. As noted by the Zero Routine Flaring by 2030 initiative, during oil production, associated gas is produced from the reservoir together with the oil. Much of this gas is utilized or conserved because governments and oil companies have made substantial investments to capture it; nevertheless, some of it is flared because of technical, regulatory, or economic constraints. As a result, thousands of gas flares at oil production sites around the globe burn approximately 140 billion cubic meters of natural gas annually, causing more than 300 million tons of CO2 to be emitted to the atmosphere. As such, flaring in the context of this question is deemed not relevant because: 1) MPC does not operate in the oil production segment where most of the flaring reduction efforts are needed and focused on, 2) At less than 3%, flaring emission are a small portion of MPC's total scope 1 emissions, and 3) MPC has already completed a significant effort and investment to reduce flaring from our petroleum refineries.

(7.66) Is your organization involved in the sequestration of CO2?

Select from:

☒ No

(7.73) Are you providing product level data for your organization's goods or services?

Select from:

☒ No, I am not providing data

(7.74) Do you classify any of your existing goods and/or services as low-carbon products?

Select from:

☒ Yes

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Row 1

(7.74.1.1) Level of aggregation

Select from:

☒ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☒ The IEA Energy Technology Perspectives Clean Energy Technology Guide

(7.74.1.3) Type of product(s) or service(s)

Biofuels

☒ Hydrogenated vegetable oil

(7.74.1.4) Description of product(s) or service(s)

Renewable Diesel

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☒ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:

☒ Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:

☒ Cradle-to-grave

(7.74.1.8) Functional unit used

MJ of fuel

(7.74.1.9) Reference product/service or baseline scenario used

Petroleum diesel

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:

☒ Cradle-to-grave

(7.74.1.11) Estimated avoided emissions (metric tons CO₂e per functional unit) compared to reference product/service or baseline scenario

1000000

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

Avoided emissions are estimated using a lifecycle analysis approach and ultimately certified by the California Air Resources Board. Current approved lifecycle intensities for various fuels, including renewable diesel from MPC's Dickinson facility, can be found at <https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>. In 2023, renewable diesel from MPC's Dickinson facility had a lifecycle intensity range of 20 gCO₂e/MJ to 57 gCO₂e/MJ, depending on the feedstock used. Traditional petroleum diesel has a lifecycle intensity of about 100 gCO₂e/MJ. For simplicity purposes, the estimated avoided emissions were based on renewable diesel having a lifecycle intensity of 50 gCO₂e/MJ and petroleum diesel having a lifecycle intensity of 100 gCO₂e/MJ. The difference is 50 gCO₂e/MJ, or 0.00005 metric tons CO₂e/MJ. NOTE: the revenue generated as a percent of total revenue is not currently disclosed in MPC's financial statements. As such, a very high-level estimate is provided by providing the capacity of the Dickinson renewable fuel facility (12 mbpd) relative to MPC's petroleum refining capacity (2,950 mbpd).

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.4

[Add row]

(7.79) Has your organization canceled any project-based carbon credits within the reporting year?

Select from:

☒ No

C9. Environmental performance - Water security

(9.1) Are there any exclusions from your disclosure of water-related data?

Select from:

☒ Yes

(9.1.1) Provide details on these exclusions.

Row 1

(9.1.1.1) Exclusion

Select from:

☒ Business activities

(9.1.1.2) Description of exclusion

Our office building water use is excluded

(9.1.1.3) Reason for exclusion

Select from:

☒ Other, please specify :Data is judged to be unimportant or not relevant

(9.1.1.7) Percentage of water volume the exclusion represents

Select from:

☒ Less than 1%

(9.1.1.8) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at
[Add row]

(9.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

Water withdrawals – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

real-time flowmeters and/or monthly invoices

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

Water withdrawals – volumes by source

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Real-time flowmeters and/or monthly invoices track both volumes and provider.

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

Produced water associated with your oil & gas sector activities - total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☒ Not relevant

(9.2.4) Please explain

This is not applicable since MPC does not operate upstream oil and gas production assets.

Water withdrawals quality

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Daily

(9.2.3) Method of measurement

Key parameters such as turbidity, hardness, pH etc. are tested at site level using lab testing.

(9.2.4) Please explain

We have an understanding of the quality of the water that we use because there are minimum water quality requirements for processes in which we use water.

Water discharges – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Real-time flowmeters

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

Water discharges – volumes by destination

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Real-time flowmeters track volumes and destinations

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

Water discharges – volumes by treatment method

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

real-time flowmeters track volumes and destination; discharge treatment level and methods are known at all sites

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

Water discharge quality – by standard effluent parameters

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Monthly

(9.2.3) Method of measurement

Water discharge qualities are monitored in accordance with their National Pollutant Discharge Elimination System permits using automatic water samplers and lab testing. These include real time monitors for pH and temperature, and daily lab samples for other parameters such as toxicity, oil & grease, total suspended solids, etc.

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Monthly

(9.2.3) Method of measurement

Water discharge qualities are monitored in accordance with their National Pollutant Discharge Elimination System permits using automatic water samplers and lab testing. Sites are required to monitor for parameters such as nitrates and phosphates. Per the permit requirements, sampling occurs monthly/weekly/daily as applicable.

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

Water discharge quality – temperature

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Continuously

(9.2.3) Method of measurement

Regularly maintained real-time thermometers

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

Water consumption – total volume

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Monthly

(9.2.3) Method of measurement

We measure our water consumption annually using a water balance which considers water withdrawals and water discharges. Withdrawals and discharges are measured with real-time flow meters.

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

Water recycled/reused

(9.2.1) % of sites/facilities/operations

Select from:

☒ 76-99

(9.2.2) Frequency of measurement

Select from:

☒ Monthly

(9.2.3) Method of measurement

Real-time flowmeters are utilized to track water flows including recycling. Data is compiled monthly.

(9.2.4) Please explain

Water withdrawals and discharges from the administrative segment (office buildings) are immaterial in comparison to those from the Refining and Midstream segments (estimated at

The provision of fully-functioning, safely managed WASH services to all workers

(9.2.1) % of sites/facilities/operations

Select from:

☒ 100%

(9.2.2) Frequency of measurement

Select from:

☒ Monthly

(9.2.3) Method of measurement

Routine minimum weekly lab sampling on potable water and continuous online chlorine residuals where required; monthly audits to ensure compliance with all standards where applicable.

(9.2.4) Please explain

We ensure access to fully-functioning, safely managed WASH facilities for employees; our production facilities are all in the US and subject to various regulation including 29 CFR 1910.141; we also have an internal standard that sets minimum sanitary requirements for MPC and its wholly and majority owned subsidiaries.
[Fixed row]

(9.2.2) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

Total withdrawals

(9.2.2.1) Volume (megaliters/year)

(9.2.2.2) Comparison with previous reporting year

Select from:

☒ About the same**(9.2.2.3) Primary reason for comparison with previous reporting year**

Select from:

☒ Increase/decrease in business activity**(9.2.2.4) Five-year forecast**

Select from:

☒ Lower**(9.2.2.5) Primary reason for forecast**

Select from:

☒ Increase/decrease in efficiency**(9.2.2.6) Please explain**

Description for "comparison with previous reporting year" and "five-year forecast" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water withdrawals decreased from 2022 is due to decreased Refinery utilization (96% vs 92%). Total water withdrawal increased at our Martinez Renewable Facility due to production coming online. In the future, we expect freshwater withdrawals to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

Total discharges**(9.2.2.1) Volume (megaliters/year)**

(9.2.2.2) Comparison with previous reporting year

Select from:

☒ About the same

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.2.4) Five-year forecast

Select from:

☒ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.2.6) Please explain

Description for “comparison with previous reporting year” and “five-year forecast” thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water discharges stayed the same from 2022 is due to decreased Refinery utilization (96% vs 92%) as well as water discharge increases at our Martinez Renewable Facility due to production coming online as well as focusing on water effluent reuse at various sites. In the future, we expect water discharges to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

Total consumption

(9.2.2.1) Volume (megaliters/year)

63530

(9.2.2.2) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.2.4) Five-year forecast

Select from:

☒ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.2.6) Please explain

Description for “comparison with previous reporting year” and “five-year forecast” thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water consumption decreased from 2022 is due to decreased Refinery utilization (96% vs 92%). Consumption is a company-wide calculation. In the future, we expect water consumption to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

[Fixed row]

(9.2.3) In your oil & gas sector operations, what are the total volumes of water withdrawn, discharged, and consumed (by business division), how do they compare to the previous reporting year, and how are they forecasted to change?

Total withdrawals – midstream

(9.2.3.1) Volume (megaliters/year)

1462

(9.2.3.2) Comparison with previous reporting year

Select from:

☒ Much Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in efficiency

(9.2.3.4) Five-year forecast

Select from:

☒ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.3.6) Please explain

Description for “comparison with previous reporting year” and “five-year forecast” thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Water use is lower as an increased focus on water saving efforts. 2.6 million gallons of fresh water was saved by reusing uncontaminated hydrostatic test water and an additional 17 million gallons of freshwater was saved by replacing hydrostatic tests on storage tanks with other non-water based inspection technologies. In the future, we expect freshwater withdrawals to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

Total discharges – midstream

(9.2.3.1) Volume (megaliters/year)

1266

(9.2.3.2) Comparison with previous reporting year

Select from:

☒ Much Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in efficiency

(9.2.3.4) Five-year forecast

Select from:

☒ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.3.6) Please explain

Description for “comparison with previous reporting year” and “five-year forecast” thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Water discharge is lower due to lower water use as detailed above. Less water is being used meaning less water is being discharged as a result. In the future, we expect freshwater discharges to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

Total consumption – midstream

(9.2.3.1) Volume (megaliters/year)

196

(9.2.3.2) Comparison with previous reporting year

Select from:

☒ Higher

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in efficiency

(9.2.3.4) Five-year forecast

Select from:

☒ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.3.6) Please explain

Consumption is very low so small changes lead to drastic changes in percentages. In the future, we expect water consumption to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

Total withdrawals – downstream

(9.2.3.1) Volume (megaliters/year)

137736

(9.2.3.2) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.3.4) Five-year forecast

Select from:

☒ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.3.6) Please explain

Description for “comparison with previous reporting year” and “five-year forecast” thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water withdrawals decreased from 2022 is due to decreased Refinery utilization (96% vs 92%). In the future, we expect freshwater withdrawals to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

Total discharges – downstream

(9.2.3.1) Volume (megaliters/year)

75054

(9.2.3.2) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.3.4) Five-year forecast

Select from:

☒ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.3.6) Please explain

Description for "comparison with previous reporting year" and "five-year forecast" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water discharges decreased from 2022 is due to decreased Refinery utilization (96% vs 92%) as well as focusing on water effluent reuse at various sites. In the future, we expect water discharges to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

Total consumption – downstream

(9.2.3.1) Volume (megaliters/year)

62681

(9.2.3.2) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.3.4) Five-year forecast

Select from:

☒ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.3.6) Please explain

Description for "comparison with previous reporting year" and "five-year forecast" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water consumption decreased from 2022 is due to decreased Refinery utilization (96% vs 92%). Consumption is a company-wide calculation. In the future, we expect water consumption to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

Total withdrawals – other business division

(9.2.3.1) Volume (megaliters/year)

4747

(9.2.3.2) Comparison with previous reporting year

Select from:

☒ Much higher

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☒ Facility expansion

(9.2.3.4) Five-year forecast

Select from:

☒ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.3.6) Please explain

Description for "comparison with previous reporting year" and "five-year forecast" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water withdrawals increased from 2022 is due total water withdrawal increases at our Martinez Renewable Facility due to production coming online. In the future, we expect freshwater withdrawals to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measure

Total discharges – other business division

(9.2.3.1) Volume (megaliters/year)

4095

(9.2.3.2) Comparison with previous reporting year

Select from:

☒ Much higher

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☒ Facility expansion

(9.2.3.4) Five-year forecast

Select from:

☒ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.3.6) Please explain

Description for "comparison with previous reporting year" and "five-year forecast" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water discharges increased from 2022 is due to increases at our Martinez Renewable Facility due to production coming online. In the future, we expect water discharges to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

Total consumption – other business division

(9.2.3.1) Volume (megaliters/year)

653

(9.2.3.2) Comparison with previous reporting year

Select from:

☒ Much Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☒ Facility expansion

(9.2.3.4) Five-year forecast

Select from:

☒ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☒ Increase/decrease in efficiency

(9.2.3.6) Please explain

Description for "comparison with previous reporting year" and "five-year forecast" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water consumption decreased from 2022 is due to changes in operation at our Martinez Renewable Facility due to production coming online. Consumption is a segment-wide calculation. In the future, we expect water consumption to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.
[Fixed row]

(9.2.4) Indicate whether water is withdrawn from areas with water stress, provide the volume, how it compares with the previous reporting year, and how it is forecasted to change.

(9.2.4.1) Withdrawals are from areas with water stress

Select from:

☒ Yes

(9.2.4.2) Volume withdrawn from areas with water stress (megaliters)

40193

(9.2.4.3) Comparison with previous reporting year

Select from:

☒ Higher

(9.2.4.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.4.5) Five-year forecast

Select from:

☒ Higher

(9.2.4.6) Primary reason for forecast

Select from:

☒ Increase/decrease in business activity

(9.2.4.7) % of total withdrawals that are withdrawn from areas with water stress

27.92

(9.2.4.8) Identification tool

Select all that apply

☒ WRI Aqueduct

(9.2.4.9) Please explain

Description for "comparison with previous reporting year" and "five-year forecast" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The main reason our water consumption decreased from 2022 is due to decreased Refinery utilization (96% vs 92%). Consumption is a company-wide calculation. In the future, we expect water consumption to decrease with increased investments in water-smart technologies and continuing to grow our Focus on Water program to increase water efficiency measures.

[Fixed row]

(9.2.7) Provide total water withdrawal data by source.

Fresh surface water, including rainwater, water from wetlands, rivers, and lakes

(9.2.7.1) Relevance

Select from:

☒ Relevant

(9.2.7.2) Volume (megaliters/year)

77561

(9.2.7.3) Comparison with previous reporting year

Select from:

☒ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.7.5) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Our fresh surface water was about the same for 2023 compared to 2022 (increase of 0.3%). Three sites withdrawal over 90% of the total freshwater and the throughput from these sites was about the same for 2023 compared to 2022. Various sites implement freshwater reduction efforts including one saving about 68 million gallons of fresh water by diverting more reverse osmosis reject water for reuse.

Brackish surface water/Seawater

(9.2.7.1) Relevance

Select from:

☒ Relevant

(9.2.7.2) Volume (megaliters/year)

92

(9.2.7.3) Comparison with previous reporting year

Select from:

☒ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.7.5) Please explain

Brackish surface water is not necessarily relevant because it represents less than 1% of total withdrawals, but it is being provided since it is tracked. The small amount of withdrawals come from one of large coastal refineries using a small amount of seawater. The small volume was about the same as last year.

Groundwater – renewable

(9.2.7.1) Relevance

Select from:

☒ Relevant

(9.2.7.2) Volume (megaliters/year)

24482

(9.2.7.3) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.7.5) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Our ground water decreased for 2023 compared to 2022 (decrease of 5.2%). This was generally due to lower utilization in 2023 compared to 2022 (92 vs 96%).

Groundwater – non-renewable

(9.2.7.1) Relevance

Select from:

☒ Not relevant

(9.2.7.5) Please explain

We do not distinguish between groundwater-renewable and non-renewable. Future analysis may provide us the ability to provide this data.

Produced/Entrained water

(9.2.7.1) Relevance

Select from:

☒ Not relevant

(9.2.7.5) Please explain

This is not applicable since MPC does not operate upstream oil and gas production assets.

Third party sources

(9.2.7.1) Relevance

Select from:

☒ Relevant

(9.2.7.2) Volume (megaliters/year)

41810

(9.2.7.3) Comparison with previous reporting year

Select from:

☒ Higher

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.7.5) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Our third party water increased for 2023 compared to 2022 (increase of 1.3%). This was generally due to lower refinery utilization in 2023 compared to 2022 (92 vs 96%). However, third party withdrawal increased at our Martinez Renewable Facility due to production coming online since being shutdown as an oil refinery in 2020. Various sites implement freshwater reduction efforts including one saving about 99 million gallons of fresh water by improving level controls on cooling tower basins. Another saved about 325 million gallons of fresh water by increasing cooling water iron specifications.

[Fixed row]

(9.2.8) Provide total water discharge data by destination.

Fresh surface water

(9.2.8.1) Relevance

Select from:

☒ Relevant

(9.2.8.2) Volume (megaliters/year)

45742

(9.2.8.3) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.8.5) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Surface water discharge was 2.4% lower in 2023 compared to 2022. This was due to a decrease in utilization from 2022 to 2023 (96 vs 92%).

Brackish surface water/seawater

(9.2.8.1) Relevance

Select from:

☒ Relevant

(9.2.8.2) Volume (megaliters/year)

3728

(9.2.8.3) Comparison with previous reporting year

Select from:

☒ Much higher

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.8.5) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Brackish surface water/seawater makes up a small amount (4.6%) of total water discharge and therefore the changes in volume are very small in

comparison to the overall discharge quantities. Our brackish surface water/seawater discharge increased substantially (200%) from last year. Our seawater discharge decreased from 2020. The main reason for this is that almost all (98%) of our seawater discharge comes from the Martinez refinery, which we ceased crude processing at in mid-2020. This caused its water use, including discharges, to decrease since it is no longer processing crude oil. It was restarted as a Renewable Diesel facility in 2023 which accounts for the increase shown in 2023.

Groundwater

(9.2.8.1) Relevance

Select from:

☒ Relevant

(9.2.8.2) Volume (megaliters/year)

2129

(9.2.8.3) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.8.5) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Groundwater makes up a very small amount (2.6%) of total water discharge therefore the changes in volume are very small in comparison to the overall discharge quantities. Our groundwater discharge decreased approximately 1.3% from last year. The main reason for this is that there was much less groundwater discharge at our largest refinery, which itself is attributable to over 75% of our groundwater discharge. This was in part due to decreased utilization and therefore water use at the refinery.

Third-party destinations

(9.2.8.1) Relevance

Select from:

☒ Relevant

(9.2.8.2) Volume (megaliters/year)

28815

(9.2.8.3) Comparison with previous reporting year

Select from:

☒ Lower

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.8.5) Please explain

Description for "comparison with previous reporting year" and "five-year forecast" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Surface water discharge was 1.5% lower in 2023 compared to 2022. The bulk of these discharges come from our refineries that send their effluents to publicly owned treatment works. Production at these facilities decreased due to decreased refinery utilization.
[Fixed row]

(9.2.9) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

Tertiary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Relevant

(9.2.9.2) Volume (megaliters/year)

14997

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☒ Much higher

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☒ 21-30

(9.2.9.6) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. This volume generally represents our refineries that have primary, secondary and tertiary waste water treatment and discharge to a surface body of water in compliance with stringent NPDES discharge limits. Our refineries are responsible for more than 98% of total discharge so they are each counted as an individual facility for % of sites question; midstream logistics and storage and midstream gathering and processing are then each counted as a facility or operation. The main reason for this increase (16.0%) is due to increased water through the Martinez Renewable Diesel Facility that was online in 2023 and converted from a prior Refinery that was idled in mid-2020.

Secondary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Relevant

(9.2.9.2) Volume (megaliters/year)

43374

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☒ Lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☒ 31-40

(9.2.9.6) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. This volume generally represent our refineries that have primary & secondary waste water treatment and discharge to a surface body of water in compliance with stringent NPDES discharge limits. Our refineries are responsible for more than 98% of total discharge so they are each counted as an individual facility for % of sites question; midstream logistics and storage and midstream gathering and processing are then each counted as a facility or operation. The main contributor to this 2.3% decrease comes predominately from reductions at the Anacortes facility. Water consumption increased from 2022 which led to the decrease in discharge.

Primary treatment only

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Relevant

(9.2.9.2) Volume (megaliters/year)

19475

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☒ Higher

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☒ 31-40

(9.2.9.6) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. This volume generally represents our refineries that discharge to a publicly owned treatment works in compliance with stringent industrial pre-treatment permit limits. They all have primary treatment except for our Detroit facility which has primary, secondary and tertiary treatment. Our refineries are responsible for more than 98% of total discharge so they are each counted as an individual facility for % of sites question; midstream logistics and storage and midstream gathering and processing are then each counted as a facility or operation. The main reason for this increase (2.9%) comes predominately from increases at the Los Angeles and Salt Lake City facilities. Water consumption decreased from 2022 which led to the increase in discharge.

Discharge to the natural environment without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Relevant

(9.2.9.2) Volume (megaliters/year)

2313

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☒ Much lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☒ 1-10

(9.2.9.6) Please explain

This volume is generally representative of wastewater volumes sent to deep well injection. The volume increased from last year due to less wastewater being sent to deep well injection from our largest refinery

Discharge to a third party without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Relevant

(9.2.9.2) Volume (megaliters/year)

256

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☒ About the same

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☒ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☒ 1-10

(9.2.9.6) Please explain

Represent volumes sent to third parties, generally from our midstream segment. These volumes did decrease year over year but are a very small portion of overall water discharges and the relative amount is about the same.

Other

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☒ Not relevant

(9.2.9.6) Please explain

All discharges accounted for in the above categories.

[Fixed row]

(9.2.10) Provide details of your organization's emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

(9.2.10.1) Emissions to water in the reporting year (metric tons)

532

(9.2.10.2) Categories of substances included

Select all that apply

☒ Nitrates

☒ Phosphates

(9.2.10.4) Please explain

Emissions to water reported for the refining segment. only as they are responsible for more than 98% of total discharge. Water discharge qualities are monitored in accordance with their National Pollutant Discharge Elimination System permits using automatic water samplers, lab testing, and continuous flow monitoring. Data is only available for sites with specific permit requirements to report on phosphorus and nitrate in effluent discharges.

[Fixed row]

(9.3) In your direct operations and upstream value chain, what is the number of facilities where you have identified substantive water-related dependencies, impacts, risks, and opportunities?

Direct operations

(9.3.1) Identification of facilities in the value chain stage

Select from:

☒ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

5

(9.3.3) % of facilities in direct operations that this represents

Select from:

☒ 26-50

(9.3.4) Please explain

Currently, three MPC refineries – El Paso, Texas, Salt Lake City, Utah, and Los Angeles, California – are located in water-stressed areas as defined by the Global Reporting Initiative and World Resources Institute assessment tools. Our Martinez Renewable Fuels facility, which has been converted from a petroleum refinery, is also located in a water-stressed area. Martinez will use approximately 1 billion fewer gallons of water per year than when operating as a petroleum refinery. On August 3, 2020, MPC announced that the Gallup refinery would be indefinitely idled, which is in a water stressed area. These facilities represent approximately 29%. This percentage is based on MPC's refineries and renewable fuels facilities only since they represent 98% of MPC's water withdrawal volumes.

Upstream value chain

(9.3.1) Identification of facilities in the value chain stage

Select from:

☒ No, we have not assessed this value chain stage for facilities with water-related dependencies, impacts, risks, and opportunities, and are not planning to do so in the next 2 years

(9.3.4) Please explain

Focusing on direct operations as that is in our realm of control
[Fixed row]

(9.3.1) For each facility referenced in 9.3, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Row 1

(9.3.1.1) Facility reference number

Select from:

☒ Facility 5

(9.3.1.2) Facility name (optional)

Salt Lake City

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☒ Risks

☒ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

United States of America

☒ Other, please specify :Great Basin

(9.3.1.8) Latitude

40.79

(9.3.1.9) Longitude

-111.91

(9.3.1.10) Located in area with water stress

Select from:

☒ Yes

(9.3.1.12) Oil & gas sector business division

Select all that apply

☒ Downstream

(9.3.1.13) Total water withdrawals at this facility (megaliters)

3098

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Higher

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

3098

(9.3.1.21) Total water discharges at this facility (megaliters)

2025

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☒ Higher

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

2025

(9.3.1.27) Total water consumption at this facility (megaliters)

1073

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Lower

(9.3.1.29) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. The Salt Lake City refinery increased throughput in 2023 from 2022 by approximately 10% which drove the increase in withdrawals and discharges. However, water withdrawals increase by less than throughput (2.9%). This was due to efforts to reduce freshwater usage. The Salt Lake City Refinery has lowered its steam consumption, energy use and water use by optimizing the flow of stripping steam to its main amine regenerator. Over 700 pounds per hour of steam were saved as well as over 700 thousand gallons of water.

Row 2

(9.3.1.1) Facility reference number

Select from:

☒ Facility 1

(9.3.1.2) Facility name (optional)

Gallup Refinery

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☒ Risks

☒ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals only

(9.3.1.6) Reason for no withdrawals and/or discharges

The Gallup refinery was indefinitely idled in mid-2020, and continued to be idled through 2023

(9.3.1.7) Country/Area & River basin

United States of America

☒ Other, please specify :Puerco River Basin

(9.3.1.8) Latitude

35.49

(9.3.1.9) Longitude

-108.43

(9.3.1.10) Located in area with water stress

Select from:

☒ Yes

(9.3.1.12) Oil & gas sector business division

Select all that apply

☒ Downstream

(9.3.1.13) Total water withdrawals at this facility (megaliters)

63

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

63

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.27) Total water consumption at this facility (megaliters)

63

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Lower

(9.3.1.29) Please explain

The Gallup refinery was indefinitely idled in mid-2020, and continued to be idled through 2023; Although water withdrawal and consumption did decrease in 2023 compared to 2022, these values are much lower than historical when operating as a refinery.

Row 3

(9.3.1.1) Facility reference number

Select from:

☒ Facility 2

(9.3.1.2) Facility name (optional)

Martinez Renewable Fuels

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☒ Risks

☒ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

United States of America

☒ Other, please specify :San Joaquin Delta and/or Suisun Bay

(9.3.1.8) Latitude

38.0

(9.3.1.9) Longitude

-122.05

(9.3.1.10) Located in area with water stress

Select from:

☒ Yes

(9.3.1.12) Oil & gas sector business division

Select all that apply

☒ Downstream

(9.3.1.13) Total water withdrawals at this facility (megaliters)

4304

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Much higher

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

377

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

3927

(9.3.1.21) Total water discharges at this facility (megaliters)

3794

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☒ Much higher

(9.3.1.23) Discharges to fresh surface water

90

(9.3.1.24) Discharges to brackish surface water/seawater

3704

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

510

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Lower

(9.3.1.29) Please explain

The Martinez refinery was idled in mid-2020 and continued to be operated as a terminal through 2022. In 2023, it started as a renewable diesel facility and is why water withdrawal and discharge increased, although still significantly lower than when it was operational as a refinery.

Row 4

(9.3.1.1) Facility reference number

Select from:

☒ Facility 3

(9.3.1.2) Facility name (optional)

Los Angeles refinery

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

- ☒ Risks
- ☒ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

- ☒ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

United States of America

- ☒ Other, please specify :Los Angeles Basin

(9.3.1.8) Latitude

33.82

(9.3.1.9) Longitude

-118.24

(9.3.1.10) Located in area with water stress

Select from:

- ☒ Yes

(9.3.1.12) Oil & gas sector business division

Select all that apply

- ☒ Downstream

(9.3.1.13) Total water withdrawals at this facility (megaliters)

25868

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

11461

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

14408

(9.3.1.21) Total water discharges at this facility (megaliters)

13313

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☒ Higher

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

13313

(9.3.1.27) Total water consumption at this facility (megaliters)

12515

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Lower

(9.3.1.29) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Water withdrawals decreased due to decreased utilization compared to 2022 (92% vs 96%). Consumption decreased which is what caused the increase in discharge. The Los Angeles Refinery also saved 600 million gallons of freshwater by updating the iron specification limits to reduce both freshwater and

chemical usage. Level controls on cooling tower basins were also improved, resulting in less freshwater demand. On the boiler systems, the water cycles of concentration were optimized on low pressure heat boilers, also resulting in less freshwater usage

Row 5

(9.3.1.1) Facility reference number

Select from:

☒ Facility 4

(9.3.1.2) Facility name (optional)

El Paso refinery

(9.3.1.3) Value chain stage

Select from:

☒ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☒ Risks

☒ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☒ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

United States of America

☒ Other, please specify :Rio Grande - Bravo

(9.3.1.8) Latitude

31.77

(9.3.1.9) Longitude

-106.41

(9.3.1.10) Located in area with water stress

Select from:

☒ Yes

(9.3.1.12) Oil & gas sector business division

Select all that apply

☒ Downstream

(9.3.1.13) Total water withdrawals at this facility (megaliters)

6700

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☒ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

4480

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

2220

(9.3.1.21) Total water discharges at this facility (megaliters)

3624

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☒ Higher

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

3624

(9.3.1.27) Total water consumption at this facility (megaliters)

3076

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☒ Lower

(9.3.1.29) Please explain

Description for "comparison with previous reporting year" thresholds: Deviation +/- 1% about the same; Deviation between +/- 1-10% higher / lower; Deviation +/- 10% much higher / lower. Water withdrawals decreased due to decreased utilization compared to 2022 (92% vs 96%). Consumption decreased which is what caused the increase in discharge. The El Paso refinery reduced freshwater usage by over 25 million gallons by focusing on water management. This was achieved through modifications to their tank hydrostatic testing procedures and increasing cycles of concentration in their water treatment system.

[Add row]

(9.3.2) For the facilities in your direct operations referenced in 9.3.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

(9.3.2.1) % verified

Select from:

☒ Not verified

(9.3.2.3) Please explain

We currently do not obtain third party verification of our water data. We do obtain third party verification of scope 1, 2 and 3 GHG emissions as there are mature verification standards and process in place; we may verify water data in the future if mature verification standards and processes become available and common practice.

Water withdrawals – volume by source

(9.3.2.1) % verified

Select from:

☒ Not verified

(9.3.2.3) Please explain

We currently do not obtain third party verification of our water data. We do obtain third party verification of scope 1, 2 and 3 GHG emissions as there are mature verification standards and process in place; we may verify water data in the future if mature verification standards and processes become available and common practice.

Water withdrawals – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☒ Not verified

(9.3.2.3) Please explain

We currently do not obtain third party verification of our water data. We do obtain third party verification of scope 1, 2 and 3 GHG emissions as there are mature verification standards and process in place; we may verify water data in the future if mature verification standards and processes become available and common practice.

Water discharges – total volumes

(9.3.2.1) % verified

Select from:

☒ Not verified

(9.3.2.3) Please explain

We currently do not obtain third party verification of our water data. We do obtain third party verification of scope 1, 2 and 3 GHG emissions as there are mature verification standards and process in place; we may verify water data in the future if mature verification standards and processes become available and common practice.

Water discharges – volume by destination

(9.3.2.1) % verified

Select from:

☒ Not verified

(9.3.2.3) Please explain

We currently do not obtain third party verification of our water data. We do obtain third party verification of scope 1, 2 and 3 GHG emissions as there are mature verification standards and process in place; we may verify water data in the future if mature verification standards and processes become available and common practice.

Water discharges – volume by final treatment level

(9.3.2.1) % verified

Select from:

☒ Not verified

(9.3.2.3) Please explain

We currently do not obtain third party verification of our water data. We do obtain third party verification of scope 1, 2 and 3 GHG emissions as there are mature verification standards and process in place; we may verify water data in the future if mature verification standards and processes become available and common practice.

Water discharges – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☒ Not verified

(9.3.2.3) Please explain

We currently do not obtain third party verification of our water data. We do obtain third party verification of scope 1, 2 and 3 GHG emissions as there are mature verification standards and process in place; we may verify water data in the future if mature verification standards and processes become available and common practice.

Water consumption – total volume

(9.3.2.1) % verified

Select from:

☒ Not verified

(9.3.2.3) Please explain

We currently do not obtain third party verification of our water data. We do obtain third party verification of scope 1, 2 and 3 GHG emissions as there are mature verification standards and process in place; we may verify water data in the future if mature verification standards and processes become available and common practice.

[Fixed row]

(9.5) Provide a figure for your organization's total water withdrawal efficiency.

(9.5.1) Revenue (currency)

150307000000

(9.5.2) Total water withdrawal efficiency

1044197.44

(9.5.3) Anticipated forward trend

This metric is anticipated to decrease next year, primarily due to commodity prices, CP. The avg. price of gasoline sold in the US was 3.63 in 2023. It was 3.20, 3.33, 3.54, 3.73, 3.73, 3.58 for each of the 1st 6 months of 2024. CP volatility is a key reason intensity metrics based on revenue don't allow for consistent & comparable data for companies in commodity-based industries. The metric is more impacted by CP outside of the company's control than the company's water withdrawals.
[Fixed row]

(9.11) Do you calculate water intensity for your activities associated with the oil & gas sector?

Select from:

☒ Yes

(9.11.1) Provide water intensity information associated with your activities in the oil & gas sector.

Row 1

(9.11.1.1) Business division

Select all that apply

☒ Midstream

☒ Downstream

(9.11.1.2) Water intensity value (m3/denominator)

76

(9.11.1.3) Numerator: water aspect

Select from:

☒ Freshwater withdrawals

(9.11.1.4) Denominator

Select from:

☒ Barrel of crude oil throughput

(9.11.1.5) Comparison with previous reporting year

Select from:

☒ Lower

(9.11.1.6) Please explain

To manage risk surrounding water use, in 2020 we adopted a formal “Focus on Water” program. The program is designed to assess site water use, understand and mitigate water risks and identify opportunities to reduce water use. Some examples of the key areas we have achieved savings include: - Ceasing crude oil processing at the Gallup, New Mexico, and Martinez, California, refineries. Both the Gallup and Martinez refineries were high-intensity water users and high-cost facilities. By rationalizing and repurposing assets, we are also able to reduce our water usage. 2023 water savings included: 10 million gallons of fresh water saved by replacing tank hydrostatic testing with an alternate method Los Angeles refinery 99 million gallons of fresh water saved by improving level controls on cooling tower basins 328 million gallons of fresh water saved by increasing cooling water iron specification 72 million gallons of fresh water saved by increasing cycles of concentration for low pressure waste heat steam generators St. Paul Park refinery 38 million gallons of fresh water saved by increasing cycles of concentration for high pressure and lower-pressure waste heat steam generators Galveston Bay refinery 68 million gallons of fresh water saved by diverting more reverse osmosis reject water for reuse Total fresh water withdrawal for refining and midstream was mostly unchanged at 34 megaliters from 20223 to 2022, however this was despite an increase in throughput (1741 million boe to 1769 million boe from 2022 to 2023). This would not have been possible without the water saving initiatives outlined above. Freshwater withdrawal intensity is an operational target that has been set with a goal to reduce 20% from 2016 levels by 2030. Water intensity is anticipated to lower to meet this goal in the coming years.

[Add row]

(9.12) Provide any available water intensity values for your organization’s products or services.

Row 1

(9.12.1) Product name

Refinery and gas plant processing volumes: freshwater withdrawn per million barrels of oil equivalent processed

(9.12.2) Water intensity value

(9.12.3) Numerator: Water aspect

Select from:

☒ Water withdrawn

(9.12.4) Denominator

million barrels of oil equivalent processed

(9.12.5) Comment

This is a measure of how much freshwater is withdrawn per barrel of oil equivalent processed at MPC and MPLX's refineries and gas plants
[Add row]

(9.13) Do any of your products contain substances classified as hazardous by a regulatory authority?

	Products contain hazardous substances
	Select from: ☒ Yes

[Fixed row]

(9.14) Do you classify any of your current products and/or services as low water impact?

(9.14.1) Products and/or services classified as low water impact

Select from:

☒ No, and we do not plan to address this within the next two years

(9.14.3) Primary reason for not classifying any of your current products and/or services as low water impact

Select from:

☒ Other, please specify :Because an international standard is not available for our industry, there isn't a clear benchmark and thus, not possible to provide a low water impact classification. However, MPC has a freshwater withdrawal intensity metric to gauge water use.

(9.14.4) Please explain

We actively monitor and manage water use throughout all operations, continually looking for ways to reduce our use of this shared resource and use it more efficiently. To further our commitment to water conservation, we have voluntarily set a companywide target to reduce freshwater withdrawal intensity 20% (megaliters/million boe) by 2030 from 2016 levels. Through a variety of innovations, we have reduced our freshwater withdrawal intensity by 17% since 2016 and have plans for additional reductions. Across the company we continued to further align water management practices to make significant progress toward our 2030 target. These efforts have resulted in a lower impact on water resources for the company's products/services relative to previous years.

[Fixed row]

(9.15) Do you have any water-related targets?

Select from:

☒ Yes

(9.15.1) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

Water pollution

(9.15.1.1) Target set in this category

Select from:

☒ No, and we do not plan to within the next two years

(9.15.1.2) Please explain

All of our refineries are in the US and their effluents are monitored in accordance with their National Pollutant Discharge Elimination System permits. We therefore do not have targets like we do on water withdrawals which are not regulated by permits.

Water withdrawals

(9.15.1.1) Target set in this category

Select from:

☒ Yes

Water, Sanitation, and Hygiene (WASH) services

(9.15.1.1) Target set in this category

Select from:

☒ No, and we do not plan to within the next two years

(9.15.1.2) Please explain

We ensure access to fully-functioning, safely managed WASH facilities for employees; our production facilities are all in the US and subject to various regulation including 29 CFR 1910.141; we also have an internal standard that sets minimum sanitary requirements for MPC and its wholly and majority owned subsidiaries.

Other

(9.15.1.1) Target set in this category

Select from:

☒ No, and we do not plan to within the next two years

(9.15.1.2) Please explain

No additional planned targets.
[Fixed row]

(9.15.2) Provide details of your water-related targets and the progress made.

Row 1

(9.15.2.1) Target reference number

Select from:

☒ Target 1

(9.15.2.2) Target coverage

Select from:

☒ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Water withdrawals

☒ Reduction in withdrawals per unit of production

(9.15.2.4) Date target was set

06/24/2021

(9.15.2.5) End date of base year

12/31/2016

(9.15.2.6) Base year figure

93

(9.15.2.7) End date of target year

12/31/2030

(9.15.2.8) Target year figure

75

(9.15.2.9) Reporting year figure

76

(9.15.2.10) Target status in reporting year

Select from:

☒ Underway

(9.15.2.11) % of target achieved relative to base year

94

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☒ None, no alignment after assessment

(9.15.2.13) Explain target coverage and identify any exclusions

Company-wide, direct operations only as that is what we have direct control over. In line with the whole organization with our definition of the reporting boundary.

(9.15.2.14) Plan for achieving target, and progress made to the end of the reporting year

Target is planned to be achieved through continued commitment to our Focus on Water program. The program is designed to assess site freshwater use, understand and mitigate water risks, and identify opportunities to reduce freshwater use. We have implemented the Focus on Water program at all of our refineries. Efforts will continue at an anticipated linear rate as projects continue to be progressed.

(9.15.2.16) Further details of target

Progress is ahead of schedule and helps to manage water related risks in high water stress areas. It is an average year-based target.
[Add row]

C13. Further information & sign off

(13.1) Indicate if any environmental information included in your CDP response (not already reported in 7.9.1/2/3, 8.9.1/2/3/4, and 9.3.2) is verified and/or assured by a third party?

	Other environmental information included in your CDP response is verified and/or assured by a third party	Primary reason why other environmental information included in your CDP response is not verified and/or assured by a third party	Explain why other environmental information included in your CDP response is not verified and/or assured by a third party
	Select from: ☒ No, and we do not plan to obtain third-party verification/assurance of other environmental information in our CDP response within the next two years	Select from: ☒ No standardized procedure	We are waiting for more mature verification standards and/or processes.

[Fixed row]

(13.3) Provide the following information for the person that has signed off (approved) your CDP response.

(13.3.1) Job title

Senior Vice President, Health, Environment, Safety and Security

(13.3.2) Corresponding job category

Select from:

☒ Other C-Suite Officer

[Fixed row]

(13.4) Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Select from:

☒ No

