



WATER RISK MANAGEMENT AND WATER STRESS ASSESSMENT REPORT 2026

Ratch Pathana Energy Public Company Limited and its subsidiaries

Assessment based on WRI Aqueduct Water Risk Atlas 4.0 and water management information

1. Introduction: Water Risk Management

Water resources are natural resources essential to human life, ecosystems, economic development, and business activities across all sectors. In recent years, however, Water Security has become one of the environmental and climate change risk issues receiving significant global attention, as many areas are facing an imbalance between available water resources and rising water demand. These pressures are compounded by climate change, which is making rainfall patterns, seasons, and the water cycle more variable and increasingly difficult to predict. According to the World Resources Institute (WRI), 25 countries, representing approximately one-quarter of the world's population, currently face Extremely High Water Stress every year, while at least around 4 billion people live in areas experiencing high water stress for at least one month each year. In addition, global water demand has more than doubled since 1960 and is projected to increase by a further 20–25% by 2050 due to population growth, urban expansion, agriculture, industry, and energy production. At the same time, climate change is increasing the complexity of water-related risks through longer droughts, variability in rainfall, heavy rainfall and flooding events, and changes in source water availability. As a result, water issues are not only environmental risks but are also directly linked to business continuity, economic systems, supply chains, food security, and long-term energy security.

For the energy sector, water is a critical resource connected to production processes in many dimensions, including process water production, steam generation, cooling systems, water control and treatment, equipment cleaning, and supporting activities within facilities. Changes in water quantity, water quality, continuity of water supply, or constraints on access to water resources may therefore directly affect production efficiency, operating costs, and business continuity. WRI data, for example, show that thermal power plants in some areas of India have previously faced electricity-generation constraints due to water shortages for cooling systems, clearly illustrating the linkage between Water Security and Energy Security. Water management in the energy sector must therefore consider more than water consumption within facilities. It should also cover water availability at the local and basin levels, water stress, water scarcity and drought, seasonal and interannual variability in water availability, flood and heavy-rainfall risks, water quality, security of water sources, competition for water among industry, agriculture, communities, and other users, as well as changes in laws and requirements and potential impacts on communities, stakeholders, and surrounding ecosystems.

Ratch Pathana Energy Public Company Limited and its subsidiaries recognize that the generation and distribution of energy are directly and indirectly connected to water resources. Water-use characteristics, source water, and water-risk levels differ among facilities according to production technology, geography, climate, and basin context. The Company therefore manages water under the concepts of Water Risk Management together with Water Stewardship, with emphasis on internal water-use efficiency, the security and continuity of water sources, climate change, stakeholders' water demand, and potential impacts on communities and ecosystems. Water risks are assessed for both current conditions and future trends. The WRI Aqueduct Water Risk Atlas is used as one of the tools for screening and assessing spatial risk levels under both Baseline and future scenarios, together with information on water sources and river basins in Thailand, water situation data from government agencies and water service providers, actual water-use data from each facility, and environmental, community, and stakeholder information. This approach enables the assessment to appropriately reflect the context and risks of each area and supports the development of effective water-management measures and long-term risk preparedness.

2. Water Risk Governance

2.1 Water Management Policy and Commitment

Ratch Pathana Energy Public Company Limited and its subsidiaries recognize water-resource management as an important component of environmental management and sustainable business operations. The operational framework is established under the “Quality, Environment, Safety and Energy Conservation Policy,” announced on 22 May 2026, which covers compliance with applicable laws and requirements, prevention and reduction of environmental impacts, efficient and sustainable resource use, maintenance of utility-system security and business continuity, and continuous monitoring and improvement of performance. In applying this policy framework to water-resource management, the Company gives priority to the following key principles:

- **Compliance with applicable laws and requirements**, by controlling operations in accordance with laws, standards, and environmental requirements, including requirements related to water use, water treatment, and wastewater discharge.
- **Prevention and reduction of environmental impacts**, by preventing, reducing, and avoiding impacts from pollution and wastewater that may arise from business operations, while controlling water and effluent quality within applicable criteria.
- **Efficient and sustainable use of water resources**, by promoting reduced water use, maximizing resource efficiency, water circulation, and water reuse or recycling as appropriate to each process and local context.
- **Strengthening the security of water sources and utility systems**, by assessing the readiness of resources and necessary supporting systems, and preparing measures for water constraints or emergency situations to support continuity of production and business operations.
- **Resource allocation and continuous improvement**, by providing appropriate resources, personnel, systems, and measures so that environmental and water-resource management can achieve the established targets.
- **Monitoring, review, and communication of performance**, by regularly monitoring performance and reviewing environmental targets, while promoting appropriate and transparent disclosure and communication of relevant information to stakeholders.

In addition, the Company's “Sustainability Policy” serves as another important framework supporting water-resource management. It is linked to environmental principles and stakeholder engagement in three key areas: Environmental Management, which focuses on legal compliance and improving the effectiveness of environmental-quality control with consideration for ecosystems and biodiversity; Resource Efficiency, which promotes maximizing the value of all resources and reducing the use of limited resources, including water; and Stakeholder Engagement, which supports communication, collaboration, and the joint development of approaches to manage environmental impacts with relevant stakeholders.

Based on these policy frameworks, the Company translates the principles into operational water management covering water-risk assessment, water-situation monitoring, water-use efficiency improvement, control of water and effluent quality, and preparedness for situations that may affect water-source security. The Company uses

the WRI Aqueduct Water Risk Atlas as one of its tools for spatial risk screening, together with water-situation data and actual site context, to determine management measures appropriate to each facility.

In terms of resource efficiency, the Company applies the Reduce–Reuse–Recycle (3Rs) principle to support reduced use of new water, increased circulation and reuse of water, and reduced water losses from operations. At the same time, the Company emphasizes water-quality monitoring, effluent-discharge control, preparation of water sources or backup arrangements appropriate to each area, and joint monitoring of water conditions with relevant agencies, in order to strengthen resilience to water risks and support long-term business continuity.

Sources: Quality, Environment, Safety and Energy Conservation Policy (Announcement No. RPE-COM-26-027 dated 22 May 2026); Sustainability Policy; and the Company's "Water Management" webpage (information reviewed as of 30 September 2026).

2.2 Water Management Targets and Principles

The Company has established four main objectives for water-resource management as a framework for determining measures appropriate to the operational characteristics and context of each area, as follows:

- **Reduce dependence on natural water sources** by promoting efficient water use, water circulation, water reuse, and consideration of appropriate alternative water sources, thereby helping to reduce pressure on natural water sources and ecosystems.
- **Promote water conservation and improve water-use efficiency across all operational processes** through improvements in technology, production processes, and work practices to reduce water demand, together with raising employee awareness of the value of water resources.
- **Promote collaboration with communities, government agencies, and relevant stakeholders** to support local stewardship and management of water resources, reduce risks from shared water use, and promote sustainable water security.
- **Continuously monitor, evaluate, and improve water performance** by using data on water use, water quality, water conditions, and relevant risk factors to review measures in line with changes in the environment, climate, and operating context.

These approaches support the Sustainable Development Goals that the Company links to water-resource management, including SDG 6: Clean Water and Sanitation and SDG 14: Life Below Water. The Company integrates water-resource issues into its environmental and sustainability management systems and uses water information as part of planning, performance monitoring, and risk management for its operating areas.

The Company regularly assesses water risks across its business units and reviews the assessment results at least annually so that risk information reflects current conditions and projections. The assessment scope covers key issues including Water Stress, flooding, drought, and water quality, considering both short-term risks at the annual operating level and long-term risk trends that may arise over the life of a project. Assessment results are

used to develop or improve preventive and mitigation measures, improve water-use efficiency, and prepare for water shortages or events that may affect operational continuity.

The Company has also developed a water-use database for monitoring, verification, and analysis of water use at each stage of operations. This information enables the Company to link risk-screening results from the WRI Aqueduct Water Risk Atlas with facility-level data such as actual water sources, the quantity and availability of reserve water, process-water use, water circulation and reuse, water-quality data, and local water conditions. Linking area-level and facility-level information enables a more comprehensive risk assessment and helps the Company define water-management measures that correspond to the risk level and specific characteristics of each operating area.

2.3 Water Risk Assessment Process

The Company has established a systematic water-risk assessment process to identify risk levels, analyze future trends, and determine management measures appropriate to the context of each operating area. The process consists of six steps as follows:

Step	Activity	Details
1	Define assessment scope	Define the facilities and operating areas included in the water-risk assessment scope.
2	Identify location and water context	Identify the site location, water sources used, relevant river basins, water-use characteristics, and water-resource context of each area.
3	Assess water risks	Assess key risks, including Water Stress, drought, flooding, and water-quality risks, together with information specific to the operating area.
4	Assess future risk trends	Analyze water-risk trends for 2030, 2050, and 2080 under relevant scenarios to assess changes in risk levels over the medium and long term.
5	Define site-specific measures	Use assessment results to define preventive, mitigation, and risk-management measures appropriate to the operational characteristics, water sources, and context of each area.
6	Monitor and review assessment results	Monitor water conditions and performance and review the risk assessment at least annually or when significant changes occur, in order to update water-management measures and plans as appropriate.

2.4 Water-Related Challenges and Business Opportunities

The Company's water management involves both risks that may affect operational continuity and opportunities to improve efficiency. The key points are summarized as follows:

Challenges	Business Opportunities
1. Risk of water scarcity and water-related disasters. Drought, flooding, and fluctuations in water availability may affect the security of water sources, particularly in areas that depend on shared water systems and networks across multiple locations. Reserve water sources and emergency-response plans are therefore necessary.	1. Development of water technologies and innovation. Solutions such as the RO Rejected Water Recycle system and water-storage systems can improve water-use efficiency, strengthen resilience to risk, and build water-management knowledge.
2. Compliance with water laws and standards. Water and effluent quality must be continuously monitored, including cooling-water temperature and relevant water-quality parameters, to ensure compliance with applicable requirements and standards.	2. Improving efficiency and reducing water-use costs. Reducing new-water use and increasing water reuse and circulation can lower water-procurement costs, reduce effluent volumes, and reduce the long-term burden of wastewater treatment.
3. Investment costs for water infrastructure. Development of treatment systems, recycling systems, and water-storage facilities requires initial capital investment; cost-effectiveness and prioritization must therefore be considered in line with each area's risk level.	3. Building collaboration to strengthen water security. Collaboration with government agencies, communities, water suppliers, and relevant stakeholders can strengthen water security, support the exchange of water-situation information, and develop coordination mechanisms for water-scarcity situations.

3. Water Dependency and Impacts

The Company considers water risks in terms of both the availability of water resources and potential impacts on operations, communities, and the environment. Issues considered in the assessment include water stress, drought and water scarcity, flooding, water quality, water-source security, and compliance with water-quality requirements.

Operating Areas and Water Context

Area	Power Plant	Business Type	River Basin (Aqueduct)
Chonburi	Ratch Pathana Energy Power Plant	Combined-Cycle Power Plant (Natural Gas)	Gulf of Thailand Coast Basin / Thai Coast 1
Lamphun	Sahacogen Green Power Plant	Biomass Power Plant	Chao Phraya Basin / Mae Nam Wang
Kamphaeng Phet	Sahagreen Forest Power Plant	Biomass Power Plant	Chao Phraya Basin / Mae Nam Nan



4.1 WRI Aqueduct Water Risk Atlas

The WRI Aqueduct Water Risk Atlas is a tool for screening and assessing spatial water risks developed by the World Resources Institute (WRI) to help organizations, governments, and stakeholders understand water-resource risks under current conditions and future trends. The tool processes information on hydrology, climate, available water, water demand, and related factors into risk indicators that can be compared across locations and river basins. Aqueduct uses open data and academically reviewed information to develop global water-risk datasets and maps.

For this report, the Company uses data from Aqueduct 4.0, which includes 13 baseline water-risk indicators covering water-quantity risks, water-quality risks, and reputational or contextual issues related to water resources. It also provides future risk projections for key variables such as water availability, water demand, water stress, water depletion, and variability in water resources, using CMIP6 climate-model data to support long-term risk analysis.

For the assessment of operating areas, the Company uses Baseline Water Stress as the primary indicator for screening water-stress levels. This indicator reflects the level of water use relative to the amount of water available in an area. In other words, a high Water Stress value indicates that water use is high relative to available water resources and that competition or pressure on water resources may therefore be greater.

In addition to baseline conditions, the Company uses Future Water Risk Projections to consider how the risk level of each area may change over the medium and long term. Aqueduct 4.0 provides projections for 2030, 2050, and 2080 under three scenarios: Optimistic (SSP1–RCP2.6), Business as Usual: BAU (SSP3–RCP7.0), and Pessimistic (SSP5–RCP8.5), which reflect different assumptions regarding climate change and socioeconomic development.

4.2 Application of Aqueduct in the Company's Assessment

For this report, the Company applies the WRI Aqueduct Water Risk Atlas 4.0 as a tool for screening and analyzing spatial water risks through four main steps: (1) identifying the locations of operating areas, (2) identifying the relevant river basins and studying the water-resource context of each area, (3) assessing Baseline Water Stress to determine current water-stress levels, and (4) analyzing Future Water Stress trends for 2030, 2050, and 2080 under different scenarios to consider the direction of water-risk changes over the medium and long term.

Aqueduct assessment results are considered together with Site-specific Information so that the analysis more accurately reflects actual operating conditions. This includes key information such as actual water sources and supply arrangements, the availability and security of reserve water sources, the quantity and characteristics of process-water use, water-circulation and reuse or recycling systems, and measures to address water shortages or supply constraints. Considering site-specific information together with Aqueduct screening results helps the Company assess vulnerability and determine management measures that are more appropriate to the context of each facility.

Accordingly, results from the WRI Aqueduct Water Risk Atlas are used as a Screening and Prioritization Tool. Classification of an area as having high water stress does not mean that the facility itself is directly experiencing water scarcity, because actual risk also depends on site-specific factors such as the structure and

security of the water-supply system, reserve water sources, water-use efficiency, water-circulation capability, and facility preparedness measures. The Company therefore uses Aqueduct results together with basin-level information, local water-situation data, and actual operating information to support risk interpretation, prioritization of areas requiring attention, and the determination of appropriate water-management measures for each area.

Sources: World Resources Institute (WRI), Aqueduct Water Risk Atlas; Aqueduct 4.0: Updated Decision-Relevant Global Water Risk Indicators; WRI Aqueduct Help Center (Water Risk Indicators and Future Projections).

4.3 Assessment Methodology and Scope

Baseline data are not Real-time Data; rather, they are developed from long-term historical datasets. Aqueduct 4.0 water-quantity indicators use data covering 1979–2019 to reflect the general characteristics and conditions of water resources in an area, rather than water conditions at any particular point in time.

Interpretation Criteria

Low <10%	Low-Medium 10–20%	Medium-High 20–40%	High 40–80%	Extremely High >80%
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Assessment Area Scope

Area	Latitude	Longitude	Major Basin	Minor Basin	Baseline
Chonburi	13.098912	100.959684	Gulf of Thailand Coast Basin	Thai Coast 1	52.1% High
Lamphun	18.544475	99.018225	Chao Phraya Basin	Mae Nam Wang	86.8% Extremely High
Kamphaeng Phet	16.683072	99.675650	Chao Phraya Basin	Mae Nam Nan	123.3% Extremely High

4.4 Water Stress Calculation Principles

4.4.1 WRI Aqueduct 4.0 Calculation Principle

WRI Aqueduct 4.0 assesses Water Stress based on the relationship between **Total Gross Water Demand** and **Available Blue Water** at the basin level. Baseline calculations begin with monthly data and are then aggregated into an annual value.

Monthly Water Stress Formula

$$WS_m = D_m / BA_m$$

Calculated monthly for each basin unit

Symbol	Meaning	Data Source
WS_m	Water Stress in month m	Calculated result from the WRI model
D_m	Total Gross Water Demand in month m	Total water demand from domestic, industrial, agricultural/irrigation, and livestock sectors
BA_m	Blue Water Available in month m	Renewable water resources available within the basin system from the WRI hydrological model

Total Gross Water Demand does not refer only to the amount of water used by a single power plant; it covers total water demand from different sectors in the area. *Available Blue Water* represents the water resources available within the basin system according to the WRI/PCR-GLOBWB 2 hydrological model.

4.4.2 Annual Calculation (Annual Baseline Water Stress)

WRI does not calculate annual Water Stress directly as “Annual Demand ÷ Annual Supply.” Instead, Water Stress is calculated on a monthly basis first, after which a demand-weighted average is derived, giving greater weight to months with higher water demand.

$$BWS_{annual} = \sum_{m=1}^{12} (WS_m \times D_m) / \sum_{m=1}^{12} D_m$$

Demand-weighted aggregation of monthly Water Stress values

$$BWS_{annual} = [(WS_{Jan} \times D_{Jan}) + (WS_{Feb} \times D_{Feb}) + \dots + (WS_{Dec} \times D_{Dec})] / [D_{Jan} + D_{Feb} + \dots + D_{Dec}]$$

4.4.3 Source of bws_raw and Baseline Water Stress Values

When a user specifies facility coordinates, WRI Aqueduct maps the coordinates to a basin unit (PFAF/sub-basin) and exports indicator values for that area. The bws_raw column represents the Baseline Water Stress - Raw Value, which is an output already calculated by WRI.

Area	Latitude	Longitude	PFAF ID	Major Basin	Minor Basin
Chonburi	13.0989118	100.959684	443039	Gulf of Thailand Coast	Thai Coast 1
Lamphun	18.5444750	99.018225	443064	Chao Phraya	Mae Nam Wang
Kamphaeng Phet	16.6830720	99.675650	443066	Chao Phraya	Mae Nam Nan

Note: The major-basin and minor-basin names in this table are those shown in the WRI Aqueduct dataset (basin units based on PFAF codes), which uses a different system from the basin classification used by Thai agencies to describe local context in Sections 8.2.1 and 8.3.1 (e.g., Ping River Basin and Yom River Basin). The Water Stress assessment is primarily referenced to Aqueduct basin units.

4.4.4 Conversion of Raw Value to Percentage

$$\text{Water Stress (\%)} = \text{WRI Water Stress Raw Value} \times 100$$

Area	Field WRI CSV	Raw Value	Company Calculation	Reported Result	WRI Level
Chonburi	bws_raw	0.520611888	$\frac{0.520611888}{100} \times$	52.1%	High (40-80%)
Lamphun	bws_raw	0.868257376	$\frac{0.868257376}{100} \times$	86.8%	Extremely High (>80%)
Kamphaeng Phet	bws_raw	1.233412270	$\frac{1.233412270}{100} \times$	123.3%	Extremely High (>80%)

4.4.5 Future Water Stress Calculation and Field Interpretation

Code Component	Meaning	Example
bau / opt / pes	Scenario	bau = Business as Usual, opt = Optimistic, pes = Pessimistic
30 / 50 / 80	Timeframe	2030 / 2050 / 2080
ws	Indicator	Water Stress
x	Projection type	Absolute value / median projection
r	Value type	Raw value

4.4.6 Source Table for Future Water Stress Values Used in the Report

Chonburi

Scenario	Year	Field in CSV	Raw Value	Calculation	Reported Result	Level
BAU (Business as Usual)	2030	bau30_ws_x_r	0.511950053	0.511950053×100	51.2%	High
BAU (Business as Usual)	2050	bau50_ws_x_r	0.521083968	0.521083968×100	52.1%	High
BAU (Business as Usual)	2080	bau80_ws_x_r	0.484881329	0.484881329×100	48.5%	High
Optimistic	2030	opt30_ws_x_r	0.501570144	0.501570144×100	50.2%	High
Optimistic	2050	opt50_ws_x_r	0.547689976	0.547689976×100	54.8%	High
Optimistic	2080	opt80_ws_x_r	0.494168618	0.494168618×100	49.4%	High
Pessimistic	2030	pes30_ws_x_r	0.496327235	0.496327235×100	49.6%	High
Pessimistic	2050	pes50_ws_x_r	0.532557976	0.532557976×100	53.3%	High
Pessimistic	2080	pes80_ws_x_r	0.484742435	0.484742435×100	48.5%	High

Lamphun

Scenario	Year	Field in CSV	Raw Value	Calculation	Reported Result	Level
BAU (Business as Usual)	2030	bau30_ws_x_r	0.880537098	0.880537098×100	88.1%	Extremely High
BAU (Business as Usual)	2050	bau50_ws_x_r	0.887990681	0.887990681×100	88.8%	Extremely High
BAU (Business as Usual)	2080	bau80_ws_x_r	0.761979256	0.761979256×100	76.2%	High

Scenario	Year	Field in CSV	Raw Value	Calculation	Reported Result	Level
Optimistic	2030	opt30_ws_x_r	0.942305328	0.942305328×100	94.2%	Extremely High
Optimistic	2050	opt50_ws_x_r	0.815258546	0.815258546×100	81.5%	Extremely High
Optimistic	2080	opt80_ws_x_r	0.797939384	0.797939384×100	79.8%	High
Pessimistic	2030	pes30_ws_x_r	0.806532741	0.806532741×100	80.7%	Extremely High
Pessimistic	2050	pes50_ws_x_r	0.854801730	0.854801730×100	85.5%	Extremely High
Pessimistic	2080	pes80_ws_x_r	0.919029205	0.919029205×100	91.9%	Extremely High

Kamphaeng Phet

Scenario	Year	Field in CSV	Raw Value	Calculation	Reported Result	Level
BAU (Business as Usual)	2030	bau30_ws_x_r	1.272782461	1.272782461×100	127.3%	Extremely High
BAU (Business as Usual)	2050	bau50_ws_x_r	1.342809166	1.342809166×100	134.3%	Extremely High
BAU (Business as Usual)	2080	bau80_ws_x_r	1.160183862	1.160183862×100	116.0%	Extremely High
Optimistic	2030	opt30_ws_x_r	1.245127580	1.245127580×100	124.5%	Extremely High
Optimistic	2050	opt50_ws_x_r	1.258352337	1.258352337×100	125.8%	Extremely High
Optimistic	2080	opt80_ws_x_r	1.285094005	1.285094005×100	128.5%	Extremely High
Pessimistic	2030	pes30_ws_x_r	1.324445367	1.324445367×100	132.4%	Extremely High
Pessimistic	2050	pes50_ws_x_r	1.247079334	1.247079334×100	124.7%	Extremely High

5. Water Consumption in Water-Stressed Areas

Water Consumption in Water-Stressed Areas

5.1 Scope and Principles

Ratch Pathana Energy Public Company Limited and its subsidiaries assess the water-stress levels of operating areas using WRI Aqueduct Water Risk Atlas 4.0, a tool for assessing water stress at the river-basin level. The assessment covers three main facilities: Ratch Pathana Energy Power Plant in Chonburi, Sahacogen Green Power Plant in Lamphun, and Sahagreen Forest Power Plant in Kamphaeng Phet.

The Baseline Water Stress assessment found that all three facilities are located in areas with water-stress levels ranging from High to Extremely High, reflecting the degree of pressure on basin water resources when water demand is considered relative to available renewable water resources. Water Stress is an area-level assessment and does not directly indicate water scarcity at the power plant itself.

In 2025, the three facilities had total process-water consumption of 2,160,085.82 cubic metres. All of this water consumption occurred in areas with Baseline Water Stress of High or above and therefore represented 100% of total process-water consumption within the assessment scope.

5.2 Method for Calculating Each Area's Water-Consumption Share

The water-consumption share of each area is calculated by comparing process-water consumption at each facility with the combined water consumption of all three facilities, using the following formula:

Area Water-Consumption Share (%) = (Area Water Consumption ÷ Total Water Consumption of All 3 Facilities) × 100			
Area	Calculation	Value Before Rounding	Reported Share
Chonburi	$1,425,985.00 \div 2,160,085.82 \times 100$	66.0152%	66.02%
Lamphun	$338,016.82 \div 2,160,085.82 \times 100$	15.6483%	15.65%
Kamphaeng Phet	$396,084.00 \div 2,160,085.82 \times 100$	18.3365%	18.34%

Note: The percentage shown represents each facility's water consumption as a share of total water consumption within the assessment scope; it is not the area's Water Stress level.

6. Operations in Water-Stressed Areas

The baseline assessment found that all three operating areas within the assessment scope, representing 100% of the areas assessed, are classified as High or above.

Area	Baseline Water Stress	Level
Chonburi	52.1%	High

Area	Baseline Water Stress	Level
Lamphun	86.8%	Extremely High
Kamphaeng Phet	123.3%	Extremely High

Among the facilities assessed, one facility, Ratch Pathana Energy Power Plant in Chonburi, representing 33.33%, is located in an area with High water stress (40–80%), while two facilities, Sahacogen Green Power Plant in Lamphun and Sahagreen Forest Power Plant in Kamphaeng Phet, representing 66.67%, are located in areas classified as Extremely High (>80%).

These percentages are calculated based on the number of facilities, whereas the percentages reported in Section 5 are calculated based on process-water consumption. The facility in the High-stress area (Chonburi) accounts for 66.02% of total process-water consumption, while the facilities in Extremely High-stress areas (Lamphun and Kamphaeng Phet) together account for 33.98%.

Based on the assessment results, the Company continues to place importance on water-risk management by establishing measures appropriate to the risk level and context of each area. These measures cover improving water-use efficiency, reducing water use and dependence on new water, increasing water reuse and circulation, and regularly monitoring and evaluating water use. The objective is to promote efficient use of water resources, reduce long-term risks from water stress and scarcity, and support sustainable business operations alongside surrounding communities.

7. Future Water Stress and Scenario Analysis

The Company assesses future water-stress trends for 2030, 2050, and 2080 under three scenarios: Optimistic, Business as Usual (BAU), and Pessimistic. The analysis considers the direction of change and the range of uncertainty in water risks over the medium and long term and is used to support water-management planning and preparedness for each operating area.

Water Stress Heatmap Across All Scenarios

Area	Scenario	2030	2050	2080
Chonburi	BAU (Business as Usual)	51.2% High	52.1% High	48.5% High
	Optimistic	50.2% High	54.8% High	49.4% High
	Pessimistic	49.6% High	53.3% High	48.5% High
Lamphun	BAU (Business as Usual)	88.1% Extremely High	88.8% Extremely High	76.2% High
	Optimistic	94.2% Extremely High	81.5% Extremely High	79.8% High
	Pessimistic	80.7% Extremely High	85.5% Extremely High	91.9% Extremely High
Kamphaeng Phet	BAU (Business as Usual)	127.3% Extremely High	134.3% Extremely High	116.0% Extremely High
	Optimistic	124.5% Extremely High	125.8% Extremely High	128.5% Extremely High
	Pessimistic	132.4% Extremely High	124.7% Extremely High	140.9% Extremely High

Source: WRI Aqueduct Water Risk Atlas 4.0 (Baseline data: Chonburi 52.1%, Lamphun 86.8%, Kamphaeng Phet 123.3%)

Interpretation of Assessment Results by Area

The future water-stress assessment indicates that all three operating areas remain at High or Extremely High water-stress levels across all periods and scenarios analyzed. Details are as follows:

- **Chonburi** remains at a **High** water-stress level in every period and scenario, with values ranging from **48.5–54.8%**. This indicates that the area continues to face high pressure on water resources, although water-stress levels vary slightly across periods and scenarios.
- **Lamphun** has water-stress values ranging from **76.2–94.2%** across all scenarios, with most results classified as **Extremely High**. However, in **2080** under the **Business as Usual (BAU)** scenario, water stress decreases to **76.2%**, while under the **Optimistic** scenario it is **79.8%**, both of which are classified as **High**. The **79.8%** value is close to the 80% threshold at which the **Extremely High** category begins. Under the **Pessimistic** scenario in **2080**, the value remains **Extremely High** at **91.9%**, indicating that the area's risk level may differ significantly depending on the long-term scenario.
- **Kamphaeng Phet** remains at an **Extremely High** water-stress level in every period and scenario, with values ranging from **116.0–140.9%**. This reflects persistently very high pressure on water resources. Under the **BAU** scenario in **2050**, the value is **134.3%**, while the highest value in the analysis framework occurs in **2080** under the **Pessimistic** scenario at **140.9%**.

The terms Optimistic, Business as Usual (BAU), and Pessimistic do not mean that water-stress levels must improve or worsen in that sequence for every area and time period. Projection results depend on a combination of factors, including climate change, water availability, water demand, and socioeconomic assumptions under each scenario. Water Stress values may therefore change differently depending on the local context and assessment period.

In summary, the analysis finds that all operating areas within the assessment scope remain at High water stress or above in every period and scenario studied. The Company therefore continues to emphasize ongoing monitoring of water conditions, improving water-use efficiency, water circulation and reuse, and the development of site-specific water-management measures consistent with the risk level and context of each facility.

8. Water Management by Site Context

8.1 Chonburi: Ratch Pathana Energy Power Plant

Water Stress Level: High (52.1%)

The WRI Aqueduct Water Risk Atlas 4.0 assessment found that Ratch Pathana Energy Power Plant in Chonburi is located in an area with High water stress, with a Baseline Water Stress value of 52.1%. This indicates that water use in the area is relatively high compared with the renewable water resources available within the basin. However, this result is an area-level risk screening and therefore needs to be considered together with the facility's water-supply system, reserve water sources, and water-management measures.

The power plant receives raw water through a water-allocation system connected to water sources across Thailand's Eastern Region, covering Chonburi, Rayong, and Chachoengsao. It has a 10-year long-term raw-water purchase agreement and has prepared reserve water sources to address emergencies or situations that may affect continuity of water supply. The plant also implements measures to improve water-use efficiency,

including increasing cycles of concentration in the cooling system, reusing water from the Reverse Osmosis (RO) system, inspecting pipelines to reduce leakage and water loss, and reusing treated water in suitable processes. These measures help reduce demand for new water and improve resilience to local water risks.

8.1.1 Water-Source Context and Water-Allocation Network in Chonburi

To provide a more comprehensive interpretation of the WRI Aqueduct assessment in the local context, this report uses information on the Eastern Region water-management system of Eastern Water Resources Development and Management Public Company Limited (East Water) as supporting information for Chonburi. The Eastern water-supply system operates as an interconnected network linking multiple water sources and enabling water transfers between areas. East Water operates a Water Grid with a total pipeline length of approximately 553 kilometres covering Chachoengsao, Chonburi, and Rayong. The network connects several major water sources in the Eastern Region, enabling systematic water allocation to industry and other users and increasing management flexibility when particular water sources face constraints.

The water-transmission system also uses SCADA (Supervisory Control and Data Acquisition) technology and Online Metering to monitor and control water delivery and to track water-volume and system-operating data, supporting efficient monitoring and allocation of water across the network.

Therefore, although the WRI Aqueduct assessment classifies Chonburi as an area with High water stress, assessment of the power plant's risk must also consider the security of the water-supply system, the interconnected water-source network, water-supply contracts, reserve water sources, and the plant's water-efficiency measures. These are important factors that help reduce vulnerability and strengthen the facility's preparedness for water-related risks.

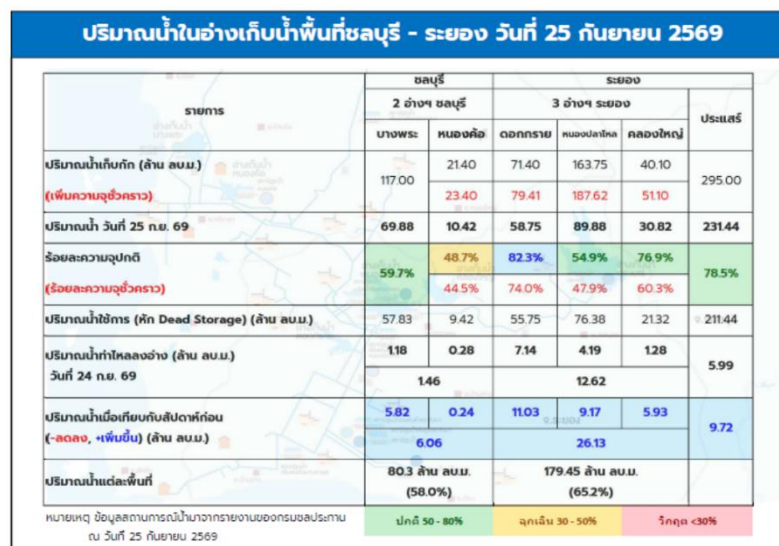


Figure 1 Summary of Reservoir Storage in the Chonburi-Rayong Area as of 25 September 2026

Source: East Water, Water War Room (25 September 2026)

Note: East Water information in this section is used to explain the infrastructure context and area-level water situation. It does not mean that Ratch Pathana Energy Power Plant receives water directly from every reservoir identified.

Sources: East Water – Reservoir Water Storage; Raw Water Business Overview (Water Grid); Climate Change Management and Integrated Water Management; Weekly Water Situation (information accessed as of 30 September 2026).

8.2 Lamphun: Sahacogen Green Power Plant

Water Stress Level: Extremely High – 86.8%

The WRI Aqueduct Water Risk Atlas 4.0 assessment found that Sahacogen Green Power Plant in Lamphun is located in an area with Extremely High water stress, with a Baseline Water Stress value of 86.8%. This reflects a high level of pressure on water resources and competition for water at the basin level relative to the renewable water resources available in the area.

The power plant is located within Saha Group Industrial Park, Lamphun, and uses water from an allocation system provided for industrial use. The Company states that this water-supply system is separate from community water use and does not affect the water demand of local residents. This is an important factor to consider together with the WRI Aqueduct screening results.

8.2.1 Water-Source and Utility-System Context of Saha Group Industrial Park, Lamphun

To provide a more comprehensive interpretation of the WRI Aqueduct assessment in the context of the operating area, this report uses information on the water-management and utility systems of Saha Group Industrial Park, Lamphun, as supporting information for the assessment of Sahacogen Green Power Plant. The industrial park is located in Mueang District, Lamphun Province, covers approximately 2,300 rai, and has water infrastructure to support activities within the industrial area.

Information disclosed by Saha Pathana Inter-Holding Public Company Limited indicates that Saha Group Industrial Park, Lamphun, has a raw-water reservoir with a capacity of approximately 1,100,000 cubic metres, a water-production system with a capacity of approximately 4,000 cubic metres per day, and a groundwater-well system. The 2024 Sustainability Report states that the groundwater-based utility-water system has a pumping rate of approximately 134,400 cubic metres per month. The industrial park also has a central wastewater-treatment system with a capacity of approximately 6,500 cubic metres per day to support facilities within the park.

To improve water-resource efficiency, Saha Group Industrial Park manages water through an integrated system covering water production, raw-water storage, and wastewater treatment. Wastewater-treatment technologies are used to support water reuse and reduce environmental impacts. Sustainability disclosures from the Saha Group also identify a target for the Lamphun area to reuse treated wastewater within the site in order to reduce discharge of treated water to public water bodies.

This infrastructure is an important factor to consider together with the WRI Aqueduct Baseline Water Stress value of 86.8%, because Water Stress reflects pressure on water resources at the area and basin levels, while the risk to operational continuity of the power plant also depends on the capability of the water-supply system, reserve-water volumes, readiness of the water-production system, actual water use by the power plant, and the efficiency of water circulation and reuse.

8.3 Kamphaeng Phet: Sahagreen Forest Power Plant

Water Stress Level: Extremely High – 123.3%

The WRI Aqueduct Water Risk Atlas 4.0 assessment found that Sahagreen Forest Power Plant in Kamphaeng Phet is located in an area with Extremely High water stress, with a Baseline Water Stress value of 123.3%. This reflects very high pressure on water resources at the local and basin levels. A value above 100% does not mean that the facility itself is directly experiencing water scarcity; rather, it indicates that total water demand in the area is high relative to the renewable water resources available.

8.3.1 Water-Source and Water-Allocation Context in Kamphaeng Phet

To provide a more comprehensive interpretation of the WRI Aqueduct assessment in the context of the operating area, this report considers water-resource information for Kamphaeng Phet Province together with the water-supply system and internal water management of Sahagreen Forest Power Plant, which is located in Khui Ban Ong Subdistrict, Phran Kratai District, Kamphaeng Phet Province.

Kamphaeng Phet Province has natural water sources including rivers, canals, ponds, and marshes. The province is connected to the Ping and Yom river basins, with approximately 69.19% of the provincial area within the Ping River Basin and approximately 30.81% within the Yom River Basin. The Ping River is an important source-water resource for the province, and the water-resource system includes reservoirs, weirs, dikes, ponds, marshes, canals, and groundwater sources distributed across the area. Water conditions are monitored and managed by relevant agencies, particularly during the dry season, when the Royal Irrigation Department monitors conditions in the Ping River and uses the information to support water allocation under the area's water-management plan.

At the facility level, Sahagreen Forest Power Plant has an internal water-management system that includes a water-storage pond of approximately 40 rai with a storage capacity of approximately 370,000 cubic metres, sufficient to support water demand for electricity generation. The system includes an intake pond for sediment separation and a main storage pond, helping to control water quality, reduce chemical use, and support continuity of water supply for the production process.

The power plant also applies a Zero Discharge approach to water management. Water from the production process is treated and retained in ponds before being reused within the site, such as for watering green areas, rather than being discharged outside the facility. Perennial trees are also planted as a Green Belt around the water-storage area to help reduce evaporative water loss. These measures improve water-use efficiency and reduce the facility's demand for new water.

Therefore, although the Baseline Water Stress value of 123.3% reflects very high pressure on water resources at the area level, assessment of the power plant's risk should also consider the capacity and water level of the storage pond, seasonal inflows, actual water use, efficiency of water circulation and reuse, and drought and water-resource conditions in surrounding areas in order to appropriately assess the facility's water security.

9. Water-Use Efficiency and Application of the 3Rs

The Company promotes improved water-resource efficiency under the Reduce–Reuse–Recycle (3Rs) principle to reduce demand for new water, reduce water losses from operations, and increase water circulation and reuse. Measures implemented at each site include improving efficiency and cycles of water use in cooling systems,

reusing treated water for suitable activities, reusing water from the Reverse Osmosis system, and inspecting and improving water systems to reduce losses.

At Ratch Pathana Energy Power Plant, the Company implements the RO Rejected Water Recycle Project to reuse water separated from the Reverse Osmosis process, reducing demand for new water in the production process. In 2025, 88,247 cubic metres of water were reused.

10. Water-Reuse Targets and Performance in 2025

The Company promotes water reuse at power-plant level to improve water-resource efficiency and support implementation of the Reduce–Reuse–Recycle (3Rs) principle. Performance in 2025 was as follows:

Power Plant	2025 Performance
Ratch Pathana Energy	Water reused: 88,247 cubic metres
Sahacogen Green	Water reused: 336 cubic metres
Sahagreen Forest	Water reused: 23,266 cubic metres

The performance reflects the application of water-efficiency measures appropriate to the operating characteristics of each power plant, including water circulation, reuse of process water, and beneficial reuse of treated water. These measures help reduce demand for new water and promote efficient use of water resources.

11. Water Performance in 2025

The Company monitors water-use performance at each power plant to assess water-resource efficiency and support water-management planning for each area. The 2025 data disclosed on the Company's sustainability website are as follows:

Power Plant	Water Use	Water Intensity
Ratch Pathana Energy	1,425,985 cubic metres	2.31 cubic metres per MWh
Sahacogen Green	338,016.82 cubic metres	5.10 cubic metres per MWh
Sahagreen Forest	396,084 cubic metres	4.18 cubic metres per MWh

12. Water and Effluent Quality

The Company places importance on controlling and monitoring effluent quality from operations to comply with applicable laws, standards, and requirements, while reducing potential impacts on the environment,

communities, and surrounding water bodies. Relevant water-quality parameters are monitored regularly, including water temperature and the performance of wastewater-treatment systems prior to discharge or beneficial reuse.

In 2025, Ratch Pathana Energy Power Plant generated a total of 183,193 cubic metres of effluent. Reported effluent-quality monitoring results for the Chonburi site are as follows:

Parameter	Reported Value (Chonburi)	General Criteria under the Ministry of Industry Notification B.E. 2560 (2017)*	Comparison with Criteria
Temperature	32.1°C	Not exceeding 40°C	Below the criterion
pH	7.6	5.5–9.0	Within the criterion
BOD	2.0 mg/L	Not exceeding 20 mg/L	Below the criterion
COD	40.3 mg/L	Not exceeding 120 mg/L	Below the criterion

*General criteria according to the Department of Industrial Works table

Note

General reference criteria are based on the Notification of the Ministry of Industry on Standards for Effluent Discharge from Factories, B.E. 2560 (2017). Actual applicable standards may differ depending on factory type, production process, wastewater characteristics, and specific applicable requirements. The conditions, permits, and requirements applicable to each power plant should therefore be verified.

13. Preparedness for Water Scarcity

The Company emphasizes preparedness for water scarcity and drought that could affect operational continuity. It monitors water-situation data, water volumes in major water sources, water-resource trends and forecasts, and the status of river basins relevant to each operating area. The Company also coordinates information with government agencies, water service providers or suppliers, communities, and relevant organizations so that conditions can be assessed and appropriate response measures prepared.

The Company has established a sequential approach to preparedness and response to water risks as follows:

No.	Action	Details
1	Monitor water conditions	Monitor water volumes in water sources and reservoirs, rainfall conditions, drought, water allocation, and forecasts from relevant agencies, including information from water service providers in each area.
2	Identify risk signals	Monitor signals that could lead to water scarcity, such as declining source-water volumes, reservoir levels below normal, below-average rainfall, water-allocation constraints, or increasing water-stress trends.

3	Assess impacts on operating areas	Assess the adequacy of water sources, reserve-water volumes, process-water demand, and potential impacts on the operational continuity of each power plant.
4	Improve efficiency and control water use	Implement measures to reduce new-water use, increase water circulation and reuse, improve cooling-system efficiency, inspect for leaks, and prioritize water use according to necessity.
5	Use reserve or alternative water sources	Prepare reserve water sources, water-storage systems, or alternative water sources as appropriate to each area, and coordinate with water suppliers or relevant agencies when conditions are likely to affect normal water supply.
6	Monitor results and review plans	Continuously monitor the effectiveness of measures and water conditions, and review and update water-management plans in line with risk levels, forecast information, and lessons learned from past situations.

สรุปงานเตรียมความพร้อมในการป้องกันภัยแล้งปี 2569																
มาตรการ			แผน/ปริมาณน้ำ (ล้าน ลบ.ม.)													
ลำดับ	แหล่งน้ำ	โครงการ	ข้อมูล	ม.ก.	ท.พ.	ม.ก.	ม.ย.	พ.ล.	ม.ย.	ก.ล.	ส.ล.	ก.ย.	ค.ล.	พ.ย.	ธ.ล.	รวม
1	ประแสร์	ประแสร์ - คลองใหญ่	แผน	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	78.00
			ผล	4.09	5.47	6.70	6.67	6.55	7.01	7.23	7.27	5.65				56.63
2	ประแสร์	คลองสะพาน - ประแสร์	แผน	0.00	0.00	0.00	0.00	1.25	1.50	3.50	6.25	6.25	6.25	0.00	0.00	25.00
			ผล	0.00	0.00	0.00	0.00	0.97	4.71	5.90	8.06	7.21				26.75
3	ประแสร์	วัดไทร - ประแสร์	แผน	-	-	-	-	-	14.00	13.00	13.00	12.84	13.00	-	-	65.84
			ผล	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.51	9.94				21.45
4	หนองปลาไหล	หนองปลาไหล - หนองปลาไหล	แผน	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	2.00	2.00	0.00	0.00	7.00
			ผล	0.00	0.00	0.00	0.00	0.15	0.91	0.68	0.48	1.00				3.23
5	สระเก็บน้ำ	สนามหญ้า - สัตหีบ	แผน	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	6.00
			ผล	0.00	0.00	0.00	1.03	0.71	0.34	0.00	0.02	0.00				2.10
6	บางพระ	คลองพระองค/พนาของ - บางพระ	แผน	0.00	0.00	0.00	0.00	0.00	8.75	15.00	15.00	15.00	15.00	8.75	0.00	77.50
			ผล	0.00	0.00	0.00	0.00	0.00	4.03	11.81	15.55	11.46				42.85
7	บางพระ	แม่น้ำบางปะกง - บางพระ	แผน	0.00	0.00	0.00	0.00	0.00	0.00	3.10	6.20	6.00	6.20	3.00	0.00	24.50
			ผล	0.00	0.00	0.00	0.00	0.00	0.00	2.86	4.75	4.21				11.83

หมายเหตุ: การสุ่มเงินสำรองมีการเปลี่ยนแปลงขึ้นกับสถานการณ์น้ำ

Update ล่าสุด วันที่ 24 กันยายน 2569

Figure 2 Water-Scarcity Prevention Preparedness Measures for the Eastern Water System, 2026

Source: East Water, Water War Room (information updated as of 24 September 2026)

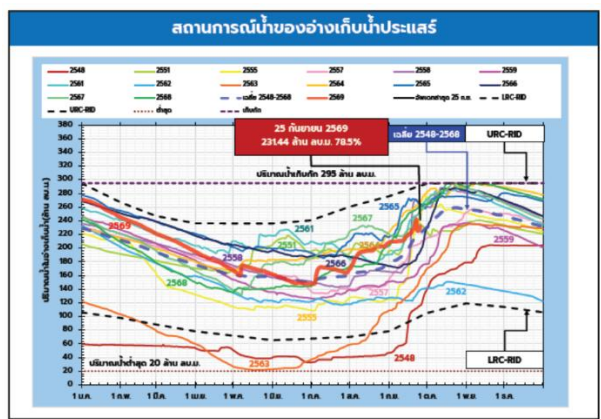
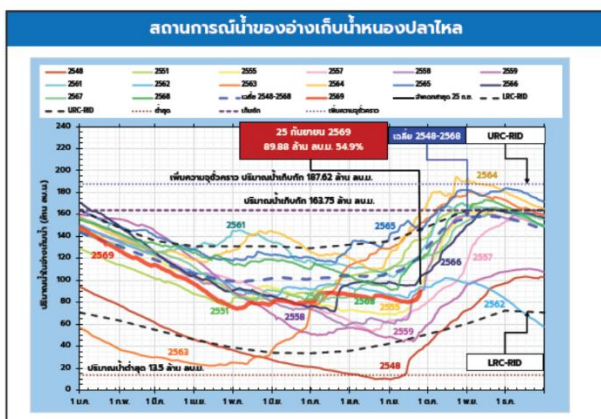
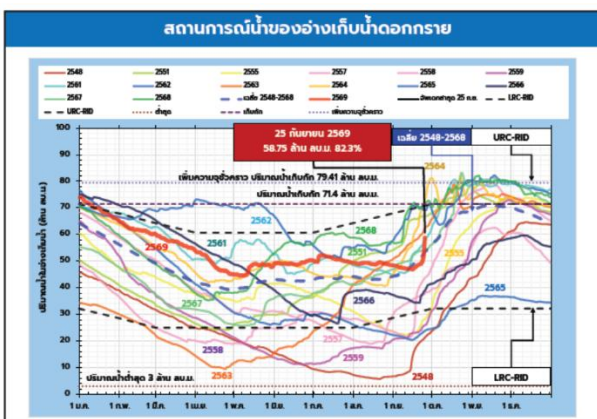
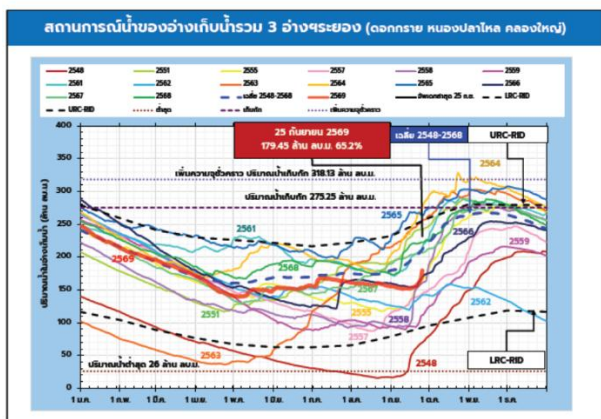
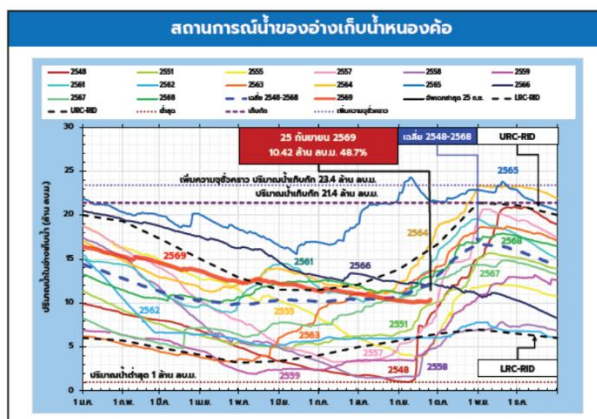
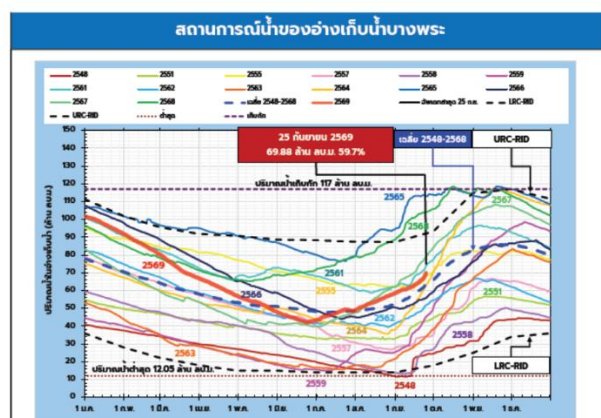
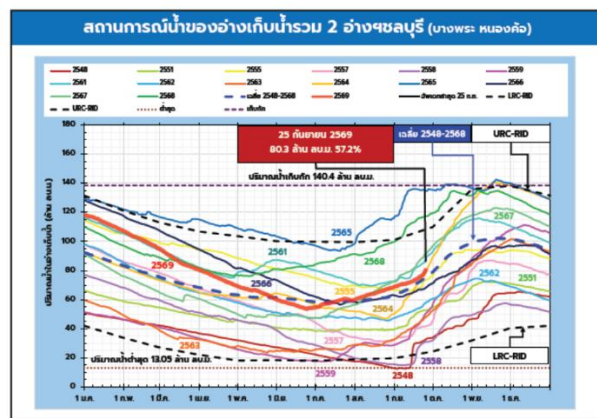


Figure 3 Reservoir Water Situation in the Chonburi-Rayong Area, 2026

Source: East Water, Water War Room (information updated as of 25 September 2026)

14. Relevant Laws and Regulations

The Company continuously monitors changes in laws and requirements related to water-resource management, particularly regulations concerning water-use permits, water-use charges, installation of water-measuring instruments, and standards for factory effluent discharge. Changes in these requirements may affect operating conditions, water-procurement costs, and the long-term water-risk management of the power plants.

14.1 Water Resources Act B.E. 2561 (2018)

The Water Resources Act B.E. 2561 (2018) is the principal law establishing the national framework for water-resource management. Use of public water resources for industrial purposes, electricity generation, and certain other activities is classified as Type Two water use and must comply with applicable licensing criteria and requirements.

Relevant subordinate legislation covers key matters such as the characteristics of each category of water use, license fees, criteria for determining water-use charge rates, water-use charges for Type Two and Type Three water use, and criteria and procedures for applying for water-use permits. Requirements also cover license application forms, water-management plans, and installation of instruments to measure the volume of water used.

14.2 Trends in Water-Use Charges

The development of water-resource regulations indicates a trend toward greater consideration of water-use costs by the industrial sector. On 20 January 2026, the Cabinet approved in principle a draft ministerial regulation designating additional irrigation waterways for which irrigation charges would be collected on water used by factories and non-agricultural activities at a rate of THB 0.50 per cubic metre.

This trend is a factor the Company should monitor from regulatory-risk and cost perspectives, particularly for operating areas that depend on public water sources or water-allocation systems that may be affected by future changes in water-pricing structures.

14.3 Factory Effluent Standards

Factory effluent discharge is regulated under the Factory Act B.E. 2535 (1992) and relevant Notifications of the Ministry of Industry concerning standards for factory effluent discharge. The Company therefore monitors both currently effective standards and the development of draft standards specifically for power-generation facilities in order to prepare for requirements that may change in the future.

15. Stakeholder Engagement in Water-Stressed Areas

Ratch Pathana Energy Public Company Limited and its subsidiaries recognize that water-risk management requires collaboration with relevant stakeholders, particularly in areas with high Water Stress. The Company therefore uses assessment results from the WRI Aqueduct Water Risk Atlas to support the development of water-management approaches and the planning of engagement with employees, customers, business partners and contractors, communities, government agencies, and relevant organizations and facilities in each area.

Implementation focuses on raising awareness and exchanging information on water conditions and risks, promoting efficient water use, reducing the use of new water, increasing water reuse and circulation, and listening to stakeholder views and concerns. This information is used to help determine water-management measures appropriate to the context and risks of each area.

Collaboration with Customers to Improve Water-Use Efficiency

The Company promotes collaboration with customers to improve water-resource efficiency by recovering Condensate Water from steam used by the customer, Thai President Foods Public Company Limited, and reusing it within the power plant. This water is formed when steam that has been used cools and condenses back into water before being reused in the Cooling Process.

This approach helps reduce demand for new water, reduce water-resource losses, and improve water-use efficiency in the production process, while supporting Water Reuse and efficient resource use in accordance with circular-economy principles.

Collaboration within the Industrial Park to Promote Water Circulation

Sahacogen Green Power Plant – Beneficial Reuse of Treated Water in Green Areas

Sahacogen Green Power Plant manages residual water from the production process by sending it to the wastewater-treatment system of Saha Group Industrial Park, Lamphun. Once the water has been treated to the required standard, it is reused for irrigation and maintenance of green areas of companies within the industrial park.

This approach reflects collaboration between the power plant and the industrial-area operator to circulate and reuse water resources. It helps reduce demand for new water for green-area maintenance and supports efficient and sustainable shared resource management within the area.

Collaboration with Communities on Water-Resource Conservation

In 2025, Sahacogen Green Co., Ltd., together with local administrative organizations and communities in Lamphun Province under the project to promote and support agricultural service and technology-transfer centers, participated in vetiver-grass planting along the Hong Ha irrigation canal as part of local water-resource and ecosystem stewardship.

This activity supports water and ecosystem management in several dimensions, including:

- **Flood prevention:** restoring areas along the irrigation canal to support drainage efficiency and help reduce flood risk during the rainy season.
- **Strengthening water security:** supporting soil and water moisture retention for the agricultural sector during the dry season and helping strengthen community food security.
- **Conservation of soil and riparian ecosystems:** helping reduce soil and bank erosion, improve the soil's ability to retain moisture, and support ecological balance around water bodies.

The Company seeks to promote collaboration with stakeholders throughout the value chain and in its operating areas to jointly reduce impacts and risks from water stress and scarcity and to support responsible water-resource management, taking into account business continuity, community water needs, and ecosystem balance in the areas of operation.

15.1 Stakeholder Groups Relevant to Water Management

Stakeholder Group	Relevance to Water Issues	Key Issues Monitored
Government Agencies and Irrigation Authorities	Oversee public water sources, water allocation, drought and flood conditions, and emergency measures.	Source-water volumes, water allocation, water-transfer or reserve-water plans, drought-warning signals, and legal requirements.

Water Allocators / Industrial Park Operators	Play a role in continuity of water delivery, water quality, reserve systems, and treatment systems.	Water-supply readiness, reserve-source capacity, system disruptions, water quality, and emergency-response plans.
Communities, Households, and Agriculture	Share water resources in the area and may be affected when water resources are constrained.	Seasonal water adequacy, impacts on community and agricultural water use, complaints, and water-quality concerns.
Industrial Operators in the Area	May share water sources or infrastructure, meaning total area water demand can affect system security.	Industrial water-demand trends, network capacity, and constraints during the dry season.
The Company and Power Plants	Responsible for water-use efficiency, water reuse, effluent control, and preparedness for water scarcity.	Water Withdrawal, Water Intensity, Reuse, reserve-water volumes, Zero Discharge/effluent treatment, and water-related incidents and complaints.

15.2 Chonburi: Eastern Water-Allocation System and Shared Users in the Network

Ratch Pathana Energy Power Plant in Chonburi is located in an area where the WRI Aqueduct assessment indicates a Baseline Water Stress level of High at 52.1%. Assessment of water-related stakeholders must therefore consider the structure of the Eastern Region water-allocation system, in which industry, communities, the service sector, and other users depend on interconnected water sources and networks.

The Eastern Region water-management system links water sources, reservoirs, pumping stations, and transmission pipelines across Chonburi, Rayong, and Chachoengsao, meaning that the water situation in each province is systemically interconnected.

Data as of 25 September 2026 indicate that the main reservoirs in Chonburi, Bang Phra and Nong Kho reservoirs, held a combined water volume of approximately 80.3 million cubic metres, equivalent to approximately 58.0% of normal storage capacity (57.2% when temporary storage capacity is included). Assessment of the power plant's water security therefore needs to consider both reservoir storage and the capacity to transfer and deliver water through the regional network.

In addition, Vongsayam Korsang Co., Ltd. (VSK) is another stakeholder involved in regional water infrastructure in the Eastern Region. The company operates a raw-water sales business and manages water-transmission pipeline networks. It discloses networks under its operation including the Dok Krai–Map Ta Phut pipeline, Map Ta Phut–Sattahip pipeline, Nong Kho–Laem Chabang pipeline, and Nong Pla Lai–Nong Kho pipeline, which connect major water sources and water-use areas in Rayong and Chonburi. VSK also publishes weekly water-situation monitoring information, making it another source that can support monitoring of regional water-system risks.

Area preparedness measures include transferring water from various sources into reservoirs, increasing transfer capacity from Rayong Province, considering additional water sources, and managing sectoral water demand when water conditions become constrained.

From a stakeholder perspective, the power plant's water security therefore does not depend only on the volume of water at any single source. It also depends on the readiness of water allocators, network operators, regional water-transfer and delivery capacity, water-use prioritization, and demand from other users in the system. The Company therefore monitors reservoir status, the status and constraints of water-delivery systems, information from water allocators and network operators, water-supply contract conditions, drought-warning signals, and complaints or impacts affecting other water users, together with the power plant's water-use data, in order to assess risks and stakeholder impacts comprehensively.

15.3 Lamphun: Communities, Agriculture, Industry, and the Mae Kuang Water System

Sahacogen Green Power Plant in Lamphun is located in an area where the WRI Aqueduct assessment indicates an Extremely High Baseline Water Stress level of 86.8%. Regional information indicates that water demand in the Chiang Mai–Lamphun area is likely to increase due to the expansion of communities, industry, and economic activities.

Information on the Mae Kuang water system indicates an existing water deficit of approximately 137 million cubic metres per year, projected to increase to approximately 173 million cubic metres per year in the future. A project is planned to increase source-water inflow to the reservoir by approximately 160 million cubic metres per year in order to improve water-system security in the area.

However, Sahacogen Green Power Plant is located within Saha Group Industrial Park, Lamphun, and uses water through a system allocated for industrial use. Details of the industrial park's water infrastructure are provided in Section 8.2.1.

In terms of water conservation and efficiency improvement, the Company has established approaches to reduce dependence on natural water sources, promote circulated and recycled water, improve technology and production processes to reduce water use, and raise awareness among employees and relevant parties regarding the value of water resources, together with continuous monitoring and evaluation of water use. For Sahacogen Green Power Plant, the Company's website reports that 336 cubic metres of process water were reused in 2025 and that 100% of process wastewater was treated before discharge.

This infrastructure and these water-conservation measures improve facility-level water resilience but do not eliminate area-level water pressure. Stakeholder monitoring should therefore cover the readiness of the industrial park's water-allocation system, water conditions in the Mae Kuang system, water demand from communities and agriculture, water-use efficiency and reuse, and complaints or concerns regarding water adequacy and quality. This helps ensure that the power plant's water management is aligned with the area's risk context and does not increase pressure on other water users.

15.4 Kamphaeng Phet: Community and Agricultural Water Dependency around Wang Bua Luang Canal

Sahagreen Forest Power Plant in Kamphaeng Phet is located in an area where the WRI Aqueduct assessment indicates an Extremely High Baseline Water Stress level of 123.3%. The local context shows that important natural water sources include Wang Bua Luang Canal and Khlong Yai, which connect onward to the Yom River Basin system, with communities and agricultural areas sharing dependence on these water resources.

Information on the Wang Bua Luang irrigation system indicates 507 registered beneficiary households and a total beneficiary area of 6,670 rai, with land use consisting mainly of agricultural areas. At the same time, the irrigation

system has certain limitations, such as canal sedimentation, limited water-storage capacity, insufficient water-control structures, and some infrastructure that cannot operate at full efficiency.

At the facility level, Sahagreen Forest Power Plant has measures to reduce dependence on external water sources, including a water-storage pond, water reuse, a Green Belt, and a Zero Discharge approach, as detailed in Section 8.3.1. Water quality and temperature are also monitored in accordance with requirements, together with ongoing monitoring of aquatic ecosystems around the power plant.

In addition to conserving water within the production process, Sahagreen Forest Co., Ltd. carries out water-resource and ecosystem restoration activities with government agencies and communities through the “Beautiful Canals, Clear Water, Caring for the Environment” project in collaboration with the Kamphaeng Phet Inland Aquaculture Research and Development Center under the Department of Fisheries. More than 3,000 freshwater fish are released into nearby public water bodies each year, beginning in 2024, to restore aquatic populations, maintain aquatic-ecosystem balance, and promote biodiversity in local water bodies.

This activity connects the power plant's water management with stewardship of local water resources. It is not limited to reducing water use in production but also covers maintaining water quality, restoring ecosystems, and engaging with local agencies responsible for water resources.

Stakeholder monitoring in Kamphaeng Phet should therefore cover communities and farmers using water around Wang Bua Luang Canal, irrigation agencies and local administrative organizations, fisheries and natural-resource agencies, and other water users in the area. Monitoring should include water quantity and quality, drought conditions, water-source conditions, agricultural water demand, community complaints, and the performance of the Company's water-conservation and restoration measures on an ongoing basis.

15.5 Stakeholder Monitoring Approach and Water Indicators

To systematically link Water Stress results with stakeholder impacts, the Company should monitor information across three dimensions in parallel: external water conditions, facility readiness, and stakeholder impacts. This information can serve as warning signals for reviewing water-management measures and communicating with relevant agencies.

Area	External / Stakeholder Indicators	Facility-Level Indicators	Community / Impact Indicators
Chonburi	Water volumes in Bang Phra–Nong Kho reservoirs, Water Grid status, water-transfer/reserve-water plans, and water-delivery status of water allocators.	Water Withdrawal, Water Intensity, RO Recycle, readiness of reserve water sources, and days of reserve water where data are available.	Water-related complaints, disruptions caused by water supply, and issues shared with communities/water users.
Lamphun	Mae Kuang reservoir conditions, seasonal drought conditions,	Water Use, Water Intensity, Treated Wastewater,	Community complaints or concerns and competition for

	and readiness of the industrial park water system.	reserve-system readiness/Days of Reserve where data are available.	water among communities, agriculture, and industry.
Kamphaeng Phet	Conditions in Wang Bua Luang Canal–Khleng Yai/Yom River Basin and limitations of the irrigation system.	Reserve-pond water level, Water Withdrawal, Reuse Rate, Water Intensity, and Zero Discharge Compliance.	Water-related complaints, impacts on agricultural and community water users, and water-quality issues.

15.6 Incidents, Complaints, and Relationships with Water Users

During 2023–2025, there were no conflict incidents involving water users or stakeholders, and no serious environmental incidents or instances of non-compliance with water-related laws.

However, the absence of incidents or complaints in the past should not be interpreted as an absence of future stakeholder risk. Because all three operating areas are classified as having High or Extremely High Water Stress, the Company continues to emphasize monitoring water conditions, stakeholder engagement, complaint monitoring, and ongoing assessment of water-use impacts to support water management that considers both business continuity and the needs of shared water users in the area.

The Company continuously monitors changes in water-resource legislation, particularly the Water Resources Act B.E. 2561 (2018) and subordinate legislation related to water-use permits, water-use charges, and factory effluent standards, which may affect water-procurement costs and the long-term operating requirements of the power plants.

Annex A: Maps Supporting the Assessment

Blue points indicate the three locations used in the analysis: Chonburi, Lamphun, and Kamphaeng Phet. The basin background colours indicate water-stress levels according to the Aqueduct dataset.

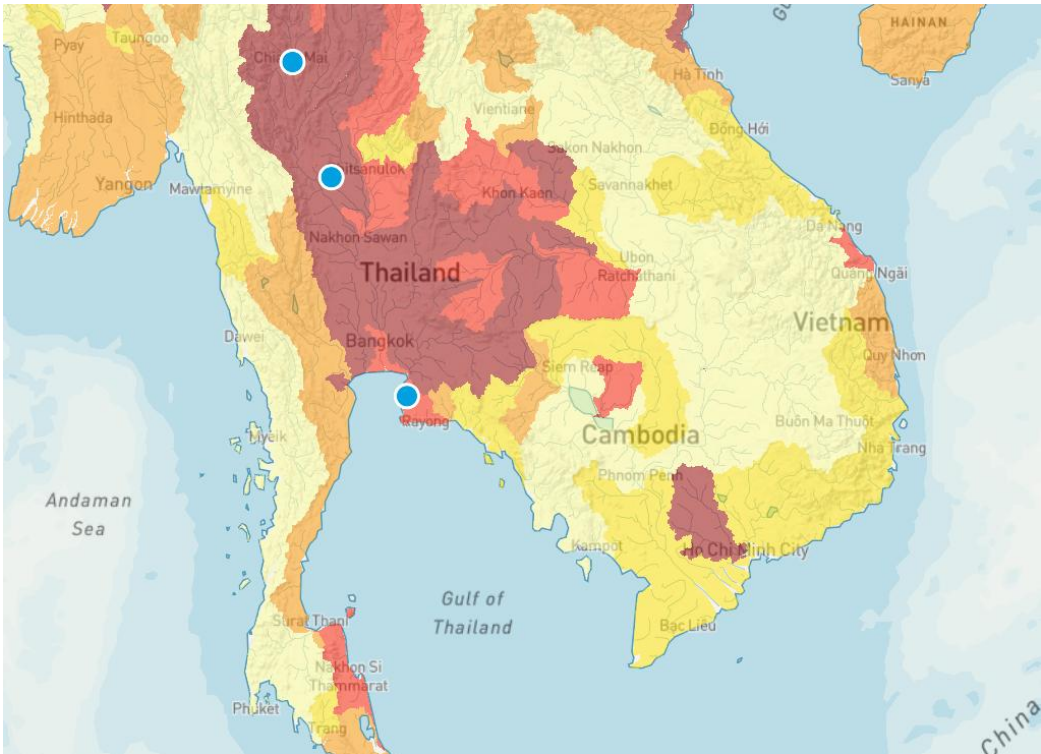


Figure A1: Baseline Water Stress map — blue points indicate the three facilities (WRI Aqueduct workbook)

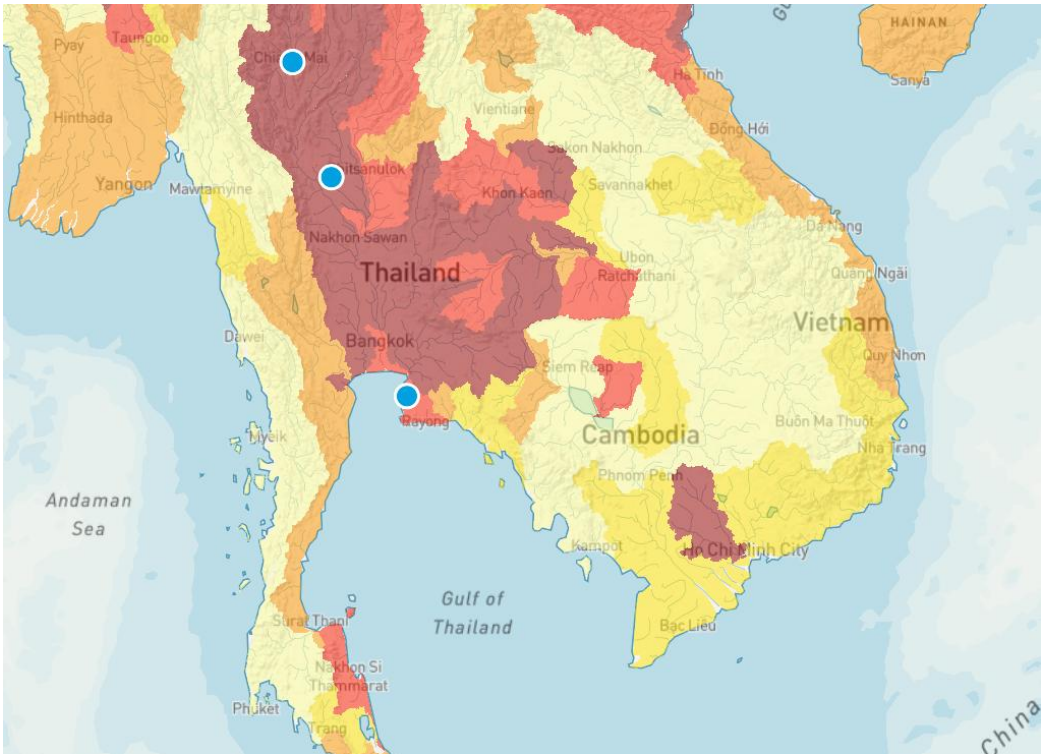


Figure A2: Future Water Stress — 2030 Business as Usual (WRI Aqueduct workbook)

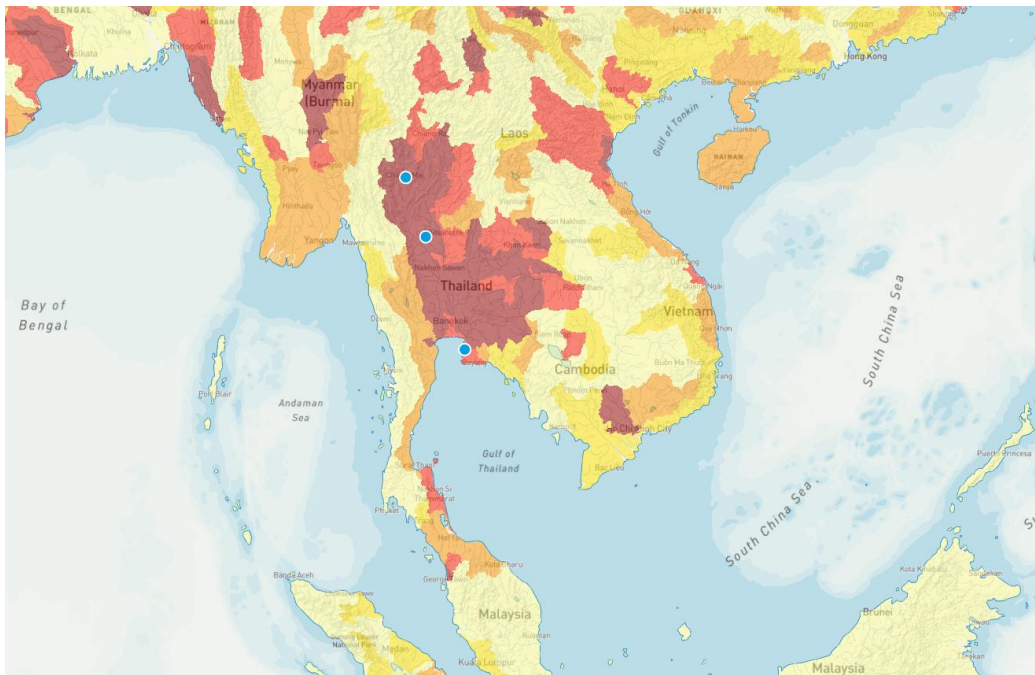


Figure A3: Future Water Stress — 2050 Business as Usual (WRI Aqueduct workpaper)

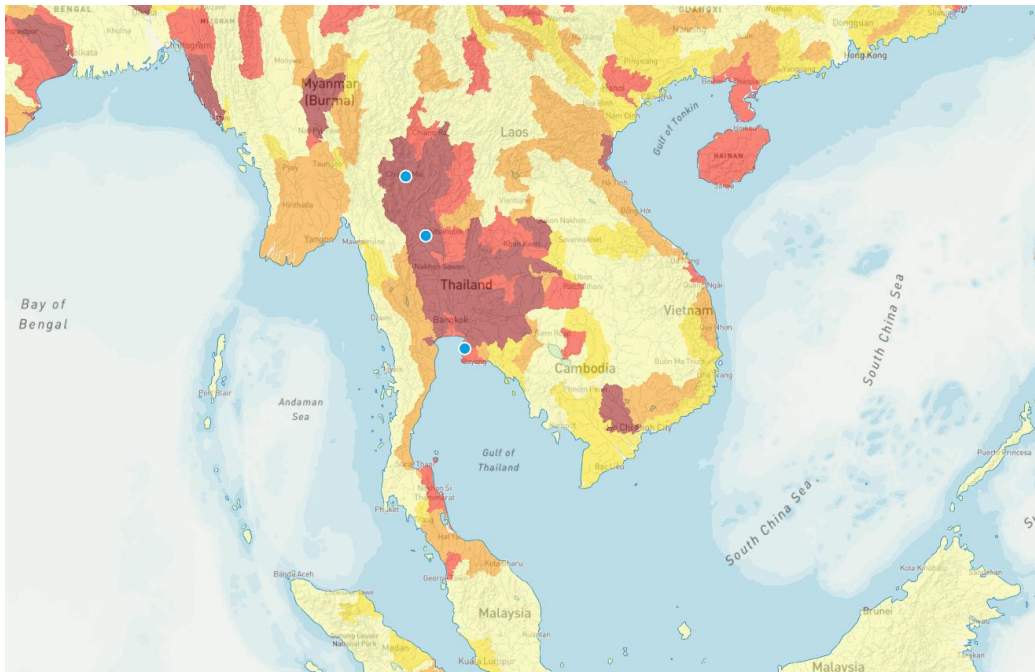


Figure A4: Future Water Stress — 2050 (Pessimistic) (WRI Aqueduct workpaper)

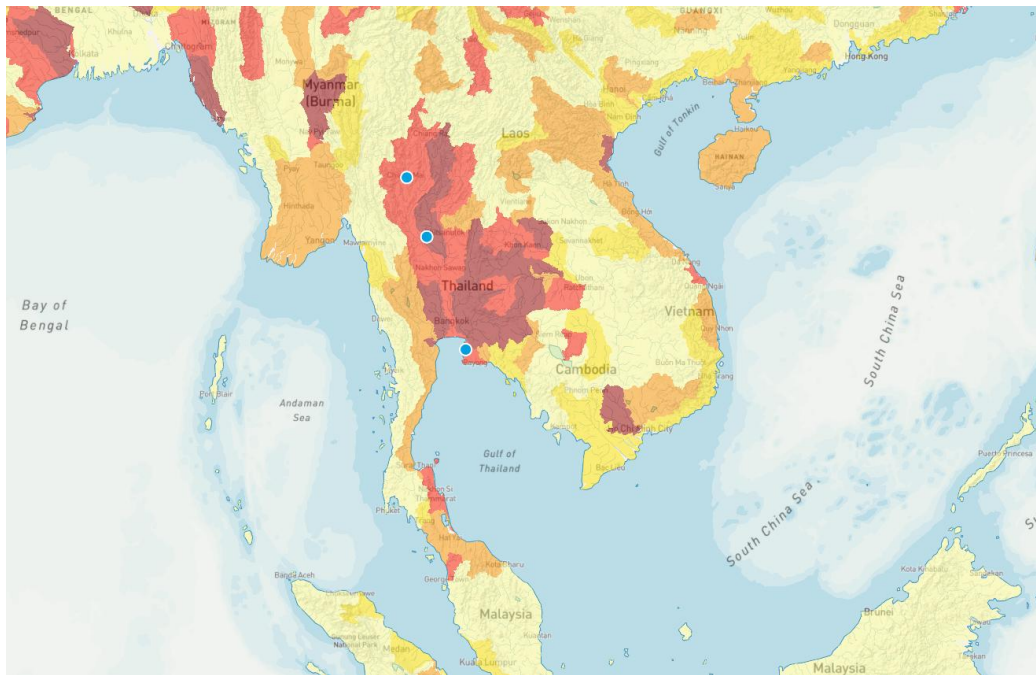


Figure A5: Future Water Stress — 2080 Optimistic (WRI Aqueduct workpaper)