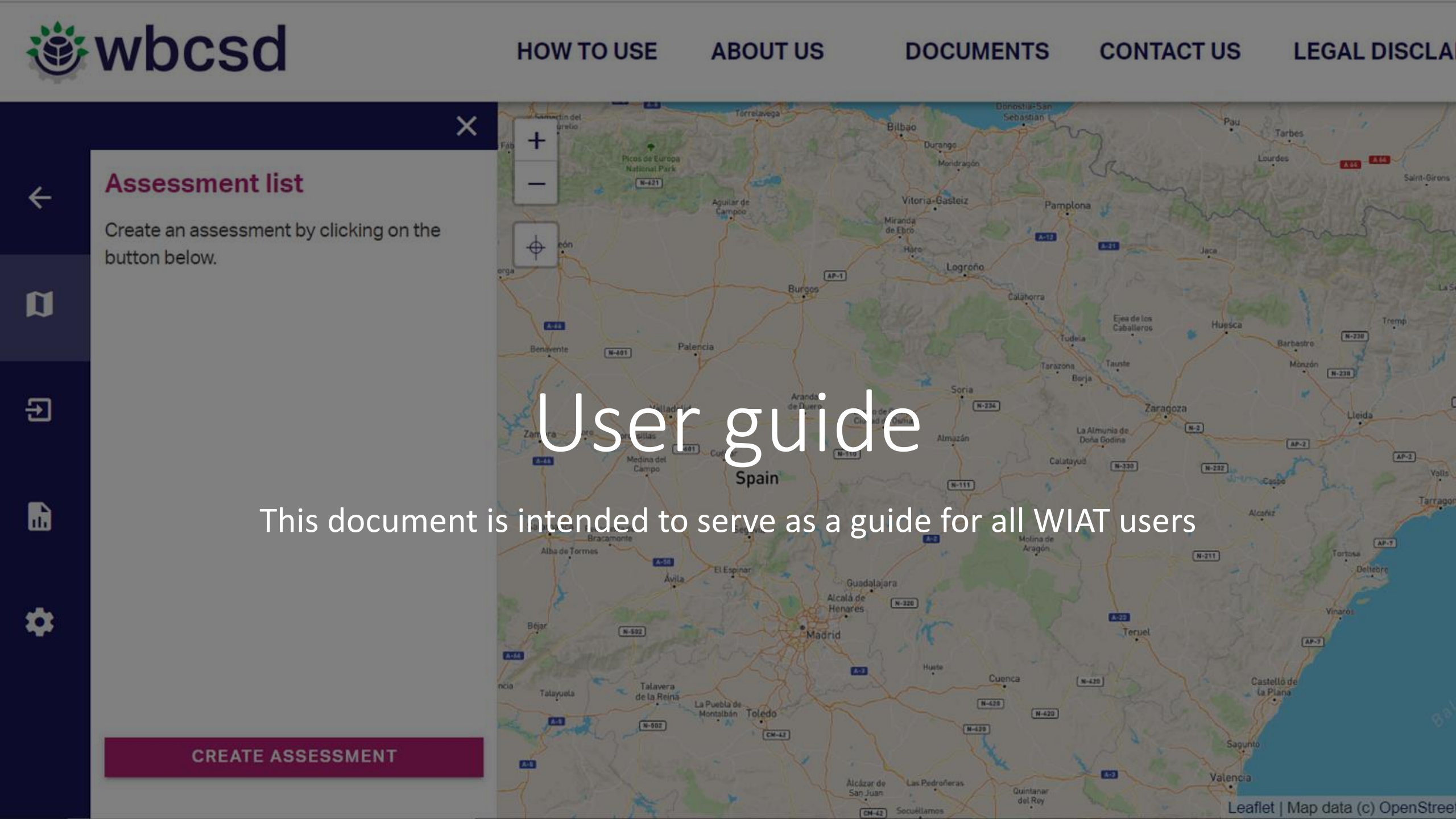

wbcsd
HOW TO USE
ABOUT US
DOCUMENTS
CONTACT US
LEGAL DISCLA
Assessment list
Create an assessment by clicking on the button below.
CREATE ASSESSMENT
User guide
This document is intended to serve as a guide for all WIAT users
Spain
Leaflet | Map data (c) OpenStreet

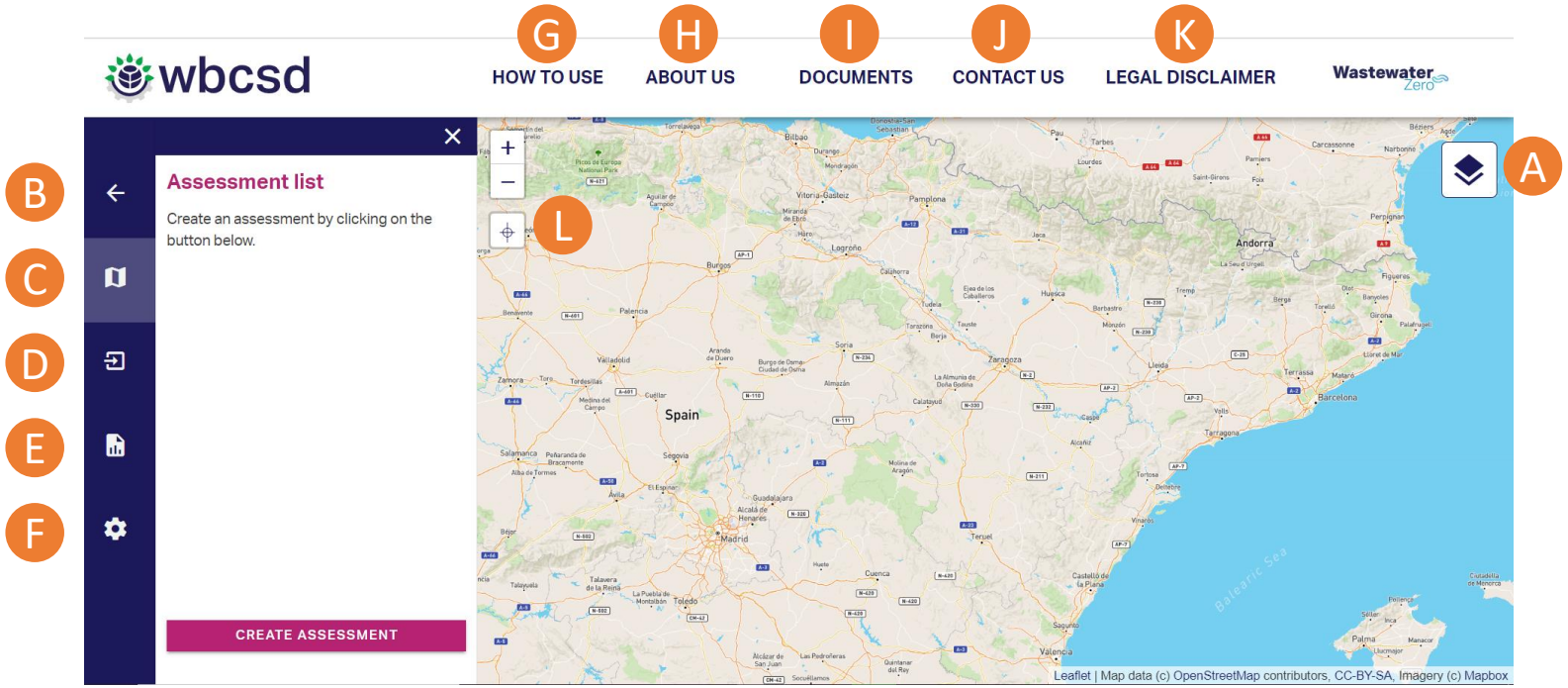
Introduction Page

- The Wastewater Impact Assessment Tool (WIAT) is a valuable tool for businesses to assess and understand the potential environmental impacts of their water treatment and discharge activities. It utilizes a geographic information system (GIS) platform to provide contextual information about the location of industries and helps identify high-impact facilities within a company's operations and supply chain.
- To use WIAT, users input relevant information about the industries they want to analyze. This information can be provided at different levels of complexity, depending on the user's preference and the available data. The tool can estimate certain parameters at a simpler level or perform more accurate calculations if detailed information is provided.
- The GIS maps integrated into WIAT offer valuable spatial information, particularly regarding streamflow. This allows the tool to calculate a range of impact indicators and identify potential areas for action. The tool assesses parameters related to water quality, water quantity, and greenhouse gas (GHG) emissions, enabling users to understand the potential impacts of industrial processes on the environment.
- The impact indicators provided by WIAT serve to analyze the potential impacts caused by industries on the environment at facility level. They help assess the changes in the state of nature resulting from these industrial activities. Additionally, the tool includes indicators related to operational activities, which can be used to identify areas for improvement and reduce the overall environmental impact.
- By using WIAT and considering the calculated impact indicators, businesses can make informed decisions and take appropriate actions to mitigate the potential negative environmental impacts associated with their water treatment and discharge activities. This tool promotes sustainability and supports companies in adopting more environmentally responsible practices within their operations and supply chains.

Landing Page interface

This is the home page of WIAT, where you can see the elements of the Project and the global indicators

A. Global indicators
B. Menu
C. Maps and datasets
D. Import/export
E. Report (Statistics)
F. Parameter configuration
G. How to use
H. About us
I. Documents
J. Contact Us
K. Legal Disclaimer
L. Search location by address or coordinates



Key steps to using WIAT

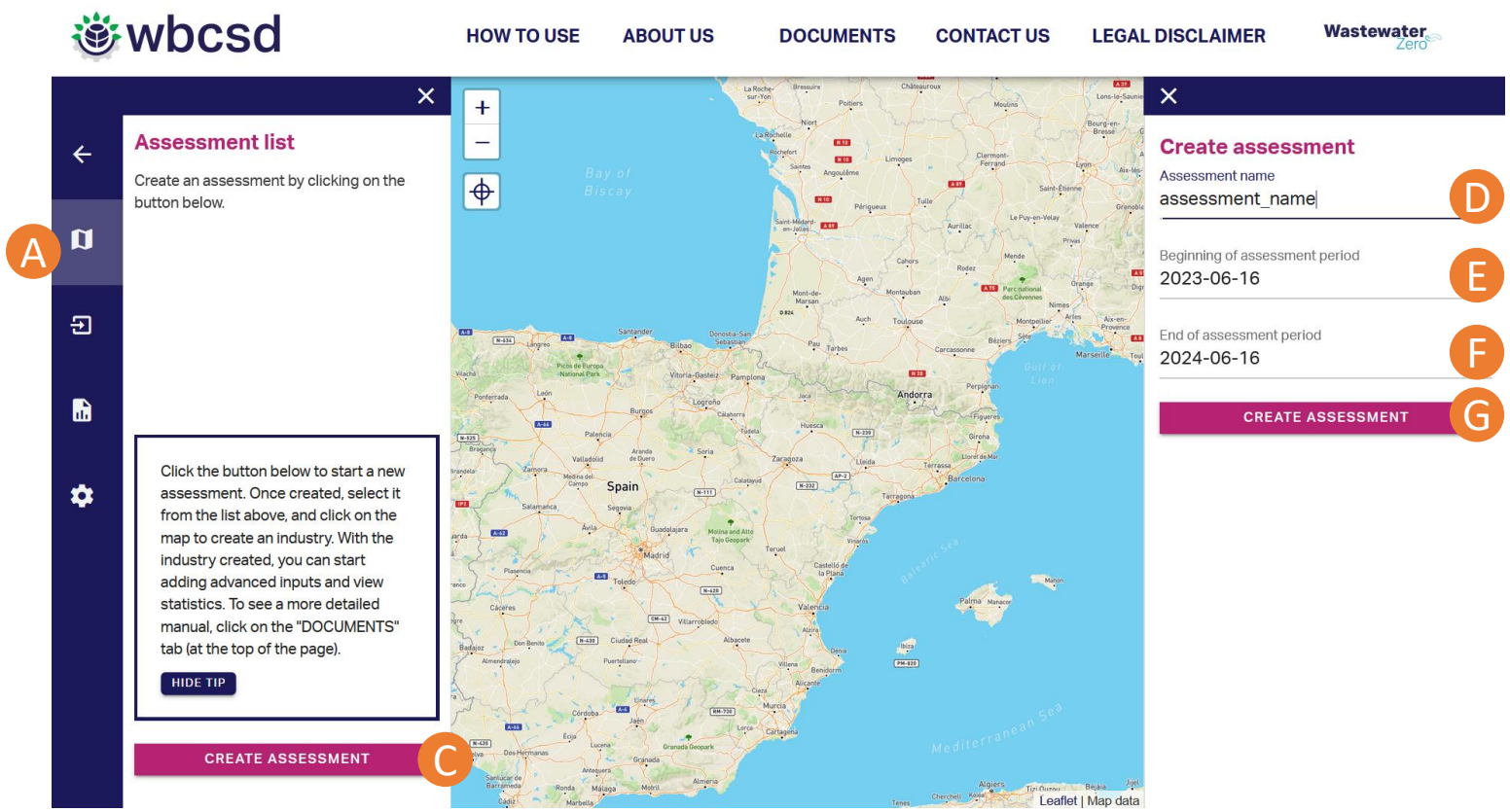
There are two option to entering site data, through the web interface (step 1 -6) or the excel upload (step A-B). This guide goes through both options.

<table>
<tr><th>Option: Using the web interface</th><th>Option: Using the excel upload</th></tr>
<tr><td>Step 1 – Create assessment</td><td rowspan="3">Step A – Download Excel template “Site locations”
1st tab create assessment
2nd tab – add industries/sites and sub-suppliers locations
Load template</td></tr>
<tr><td>Step 2.1 – Add site to the assessment selecting the location on the map

Step 2.2 – Add site to the assessment entering the site coordinates/address</td></tr>
<tr><td>Step 3 – Access to the site menu</td></tr>
<tr><td>Step 4 – Add sub suppliers to a created site</td><td rowspan="3">Step B - Download Excel template “WWTP site specific data (input)”
Use one template per site
Load template</td></tr>
<tr><td>Step 5 – Add water and WWTP site specific advanced data</td></tr>
<tr><td>Step 6 – Add WWTP site-specific data</td></tr>
<tr><td colspan="2">Step 7 – Configure Pollution Parameters</td></tr>
<tr><td colspan="2">Step 8 – General Report</td></tr>
<tr><td colspan="2">Step 9 – Site Report</td></tr>
<tr><td colspan="2">Other configurations: Global Indicators, Get report in PDF, External reporting, edit assessments / sites / sub supplier, Import and export</td></tr>
</table>

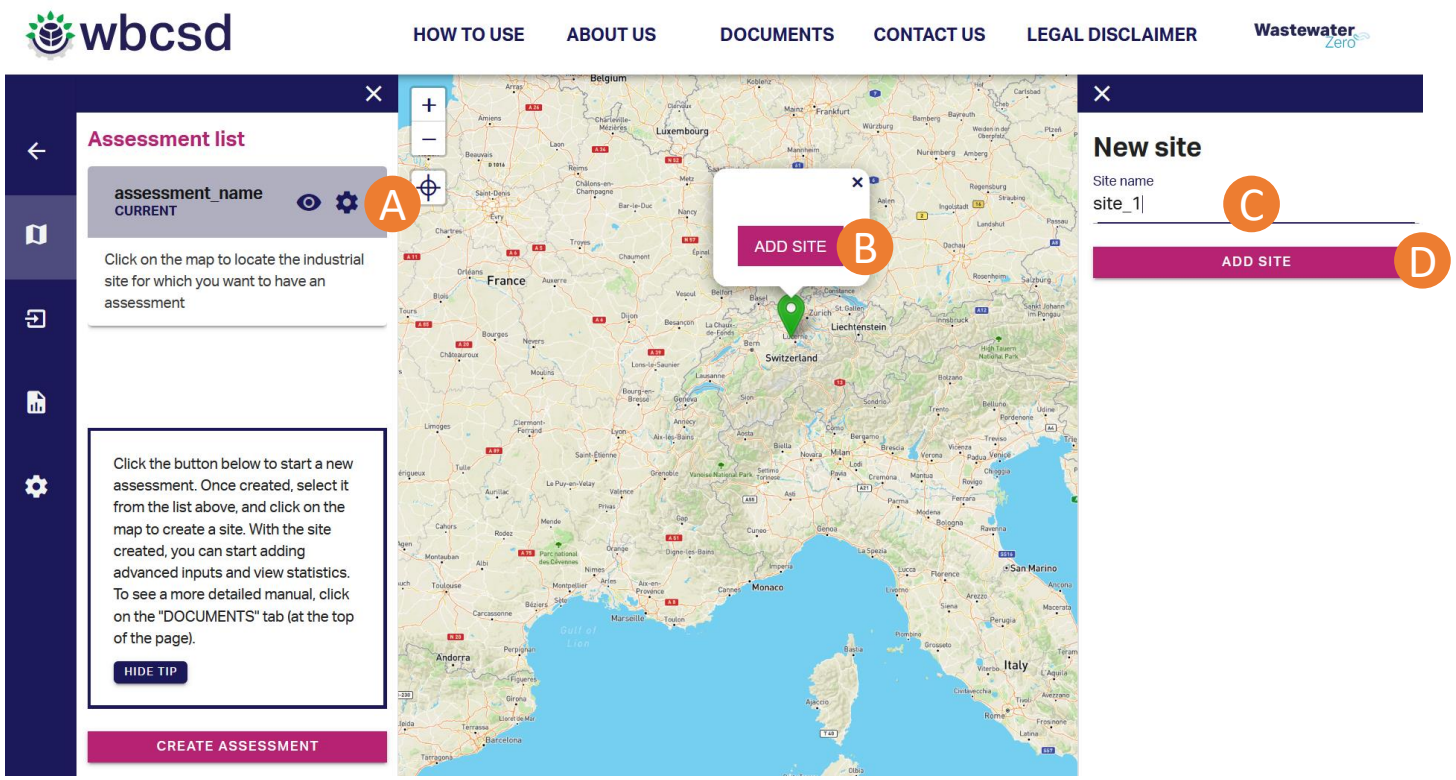
Step 1 - Create assessment

1. Select **A** to show assessment list menu
2. Select button **C**
3. Enter the assessment name in box **D**
4. Enter the beginning of assessment period in **E**
5. Enter the end of the assessment period in **F**
6. Select the button **G** to create the assessment



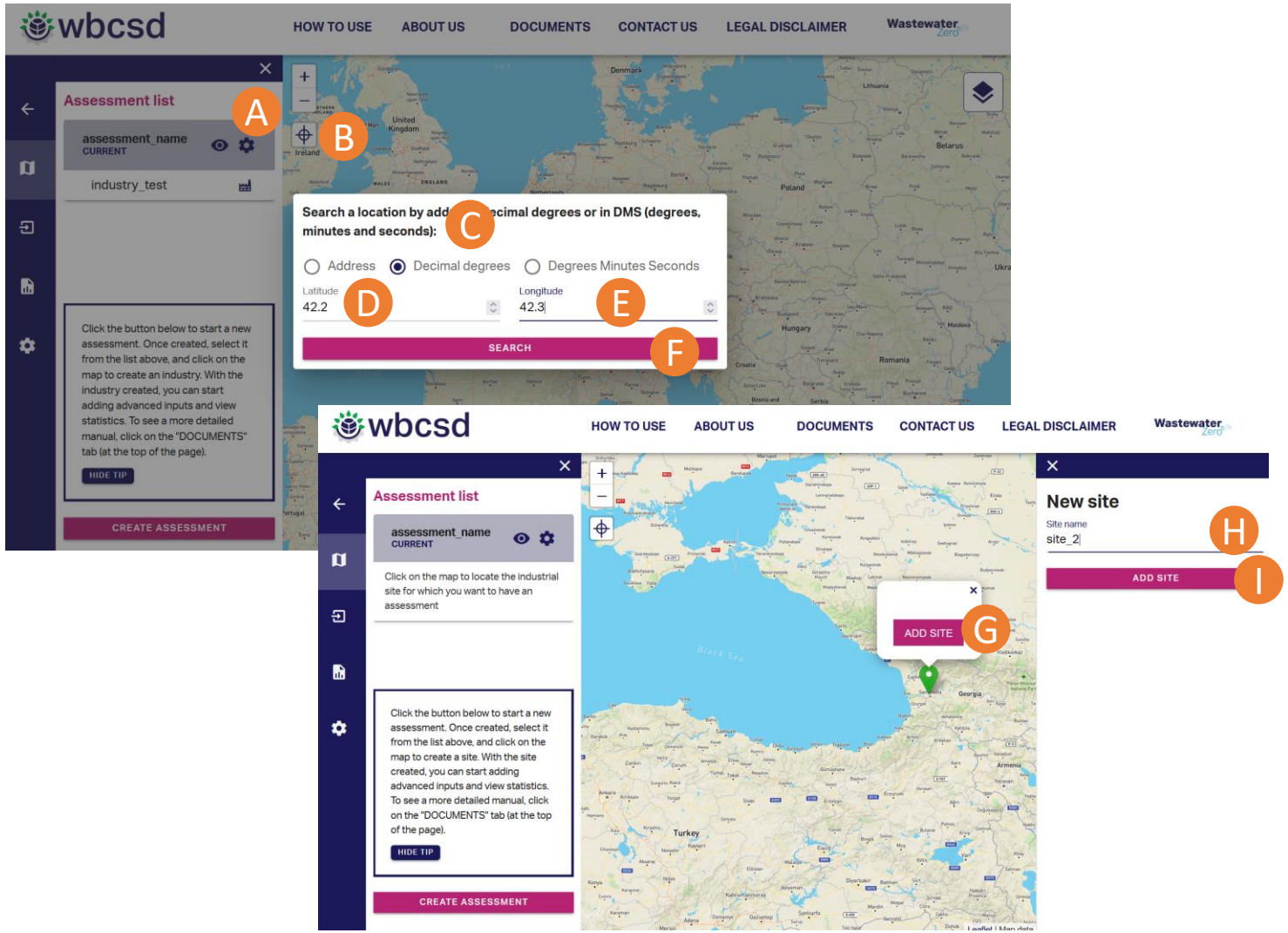
Step 2.1 - Add site to the assessment selecting the location on the map

1. Select the assessment where you want to add your sites (**A**)
2. Enter the location of the site by selecting the location directly on the map
3. Select **B**
4. Enter the site name in **C**
5. Select **D** to create this site



Step 2.2 – Add site to the assessment entering the site coordinates/address

1. Select the assessment where you want to add your sites (**A**)
2. Select **B** and add the direction/coordinates of site
3. Select **C** adding address/decimal degrees/degrees in minutes and seconds
4. Enter the site latitude in **D**
5. Enter the site longitude in **E**
6. Select **F** for searching the entered location
7. Select **G** create the site
8. Enter site name in **H**
9. Select **I** to create site

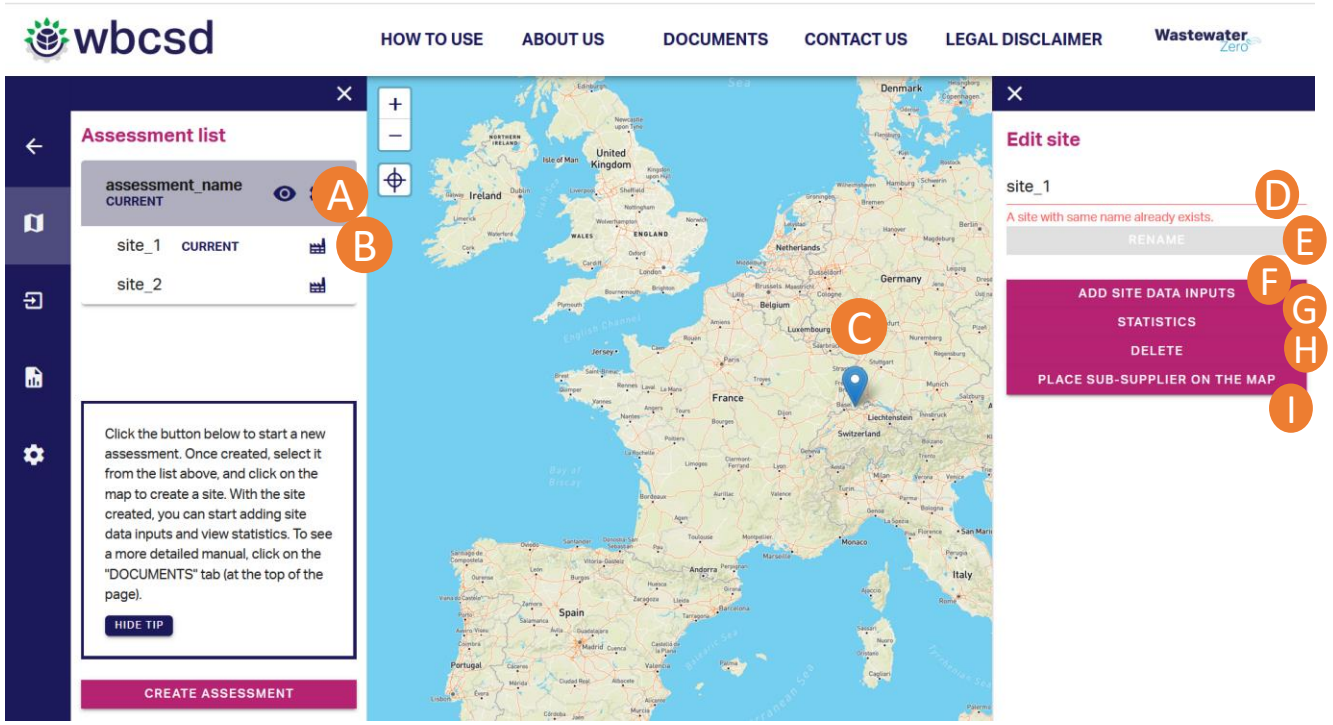


Step 3 – Access to the site menu

1. Select the assessment where the site is located selecting the box **A**
2. Select the site for which you want to open the menu (**B**)

OR

1. Select the marker of the site you want to open the menu (**C**)



From there, you can:

I. Enter a new name in **D,** and selecting **E** for renaming the site

II. Add site specific data selecting **F**

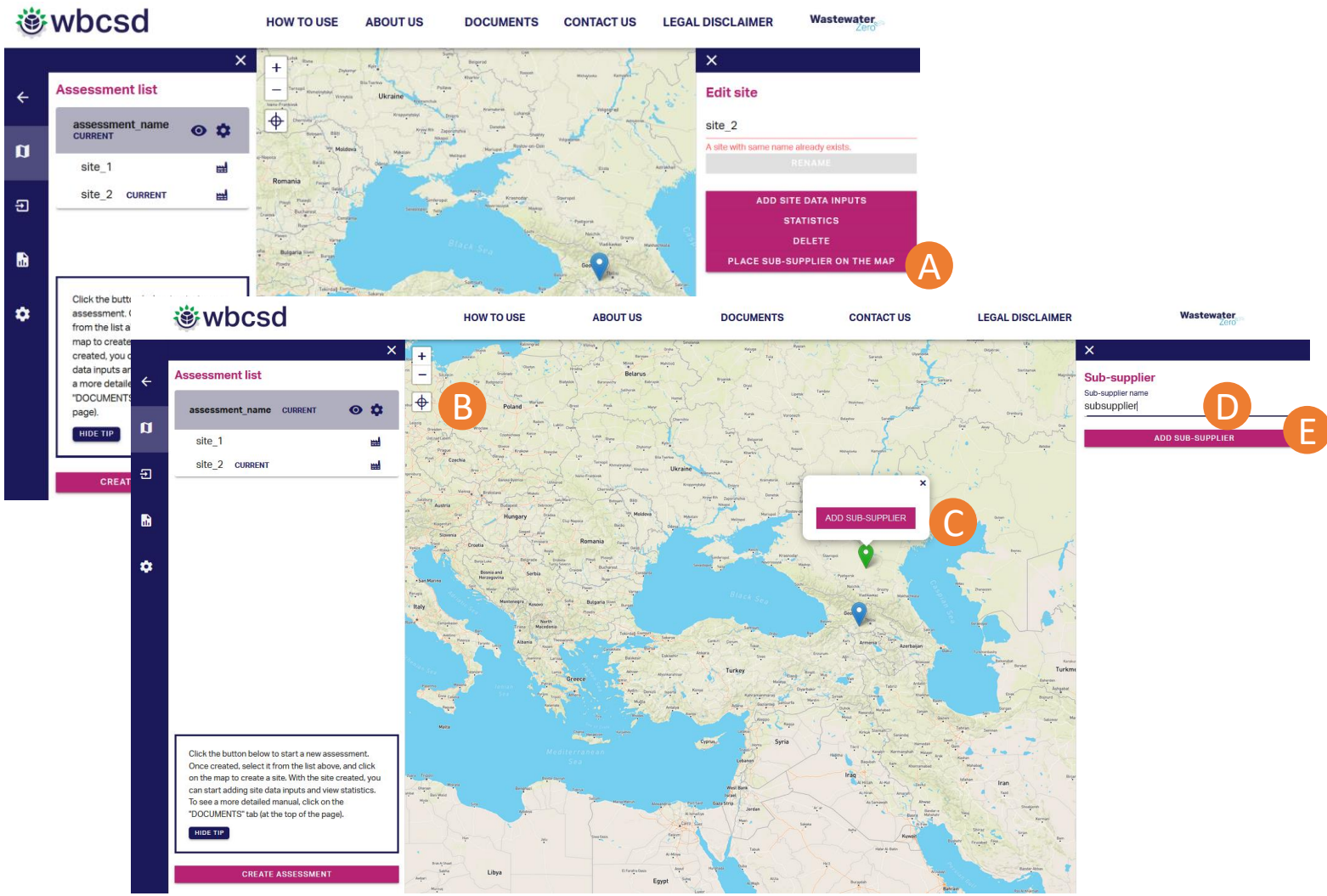
III. Access the report of the selected site selecting **G**

IV. Delete the site, with its sub suppliers, selecting **H**

V. Add a sub supplier to the site selecting **I**

Step 4 - Add sub suppliers to a created site

1. Access to the site menu
2. Select **A**
3. Enter the location by selecting it directly on the map or by adding location/coordinates in **B**
4. Select **C**
5. Enter the sub supplier name in **D**
6. Select **E** for creating the sub supplier



Step 5.1 – Add water and site-specific data

1. From the site menu, select ‘Add site data inputs’
2. Select **A** to receive extra information on how to add data to site
3. Add site data, either selecting a value **(B)** entering it **(C)**
4. Select the level of certainty of the entered data (**D).** The level of certainty measures the reliability of your data and can be categorized as 'User data', 'Modeled', 'Estimated', or 'No data'.
5. Enter the advanced site data inputs selecting **E**
6. Press **F** to save the results (otherwise they will be lost) and add data inputs related to WWTP and directly discharge water.

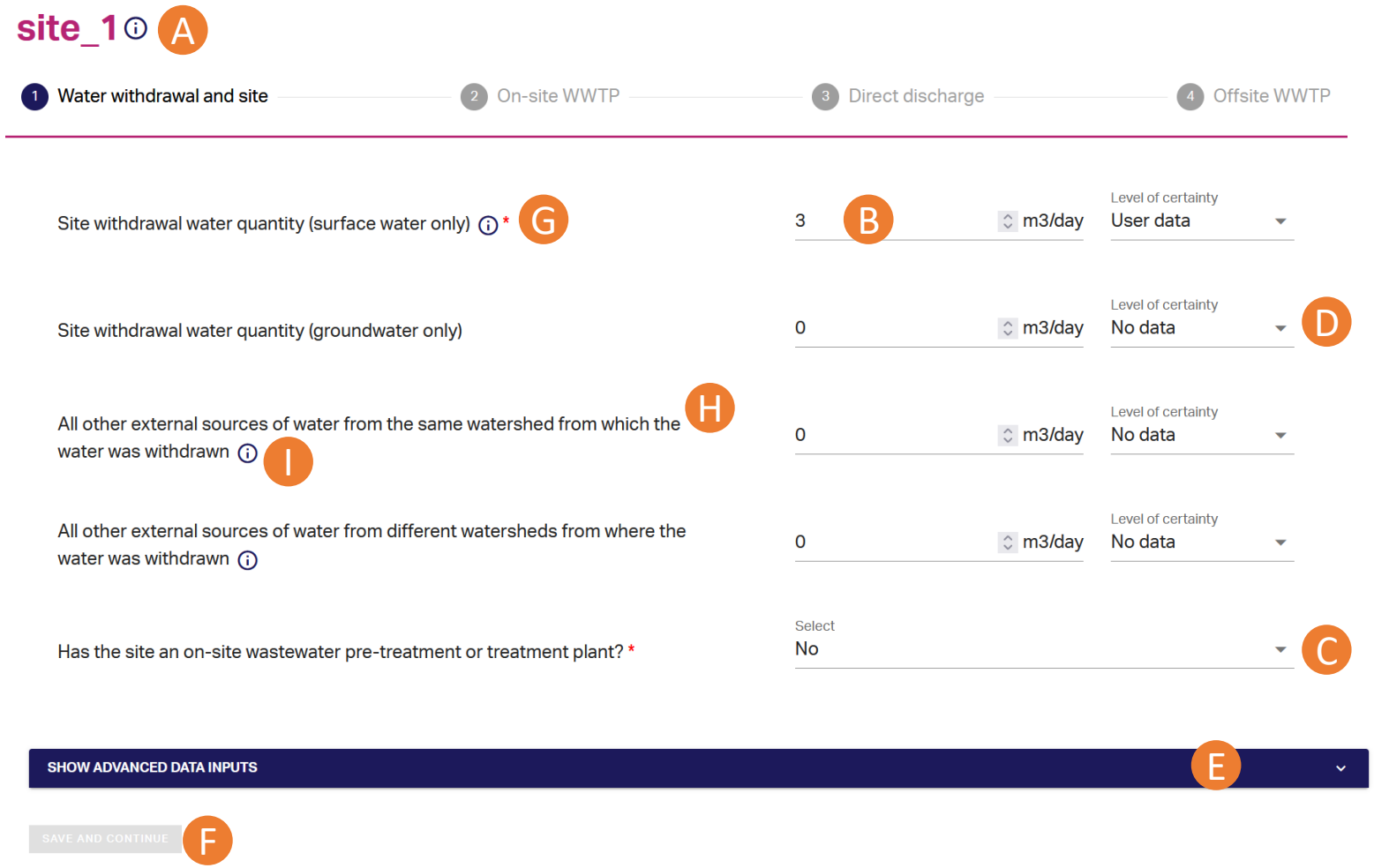
Keep in mind that:

I. Only the data inputs with an asterisk **(G)** are mandatory

II. Select **H** if you want to apply the estimation proposed by the tool

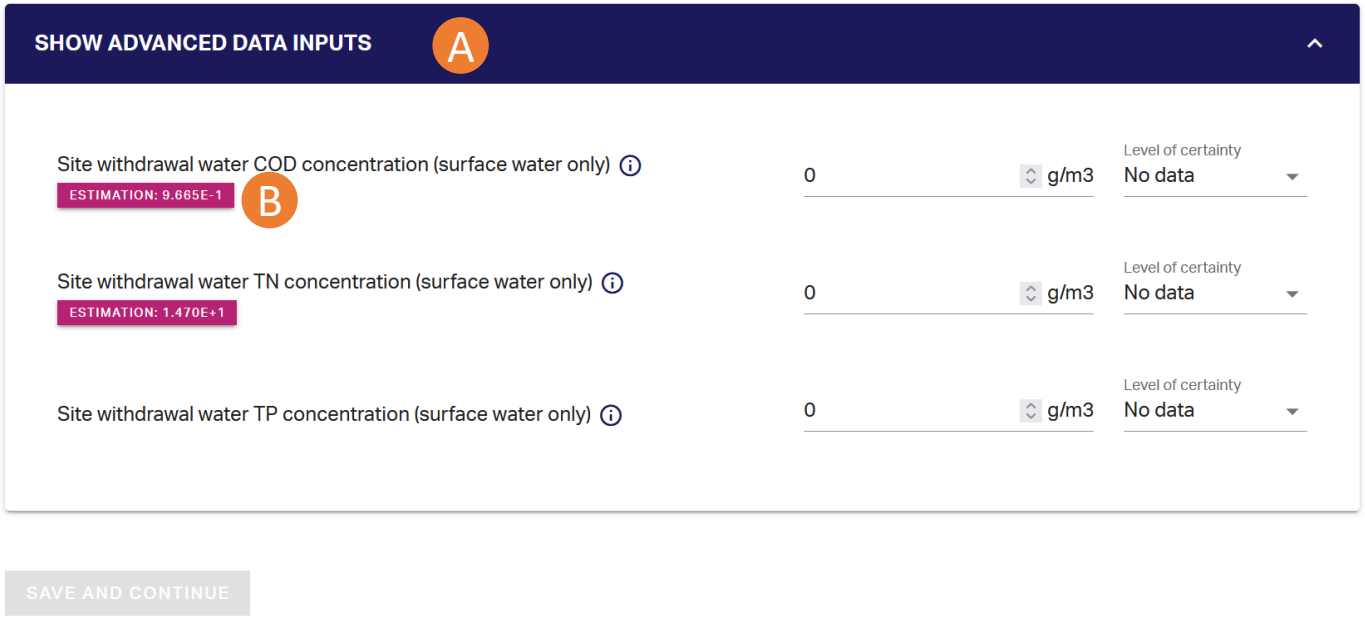
III. Select **I** to get extra information on the data input

IV. The button **F** will be disabled until you enter all the mandatory inputs



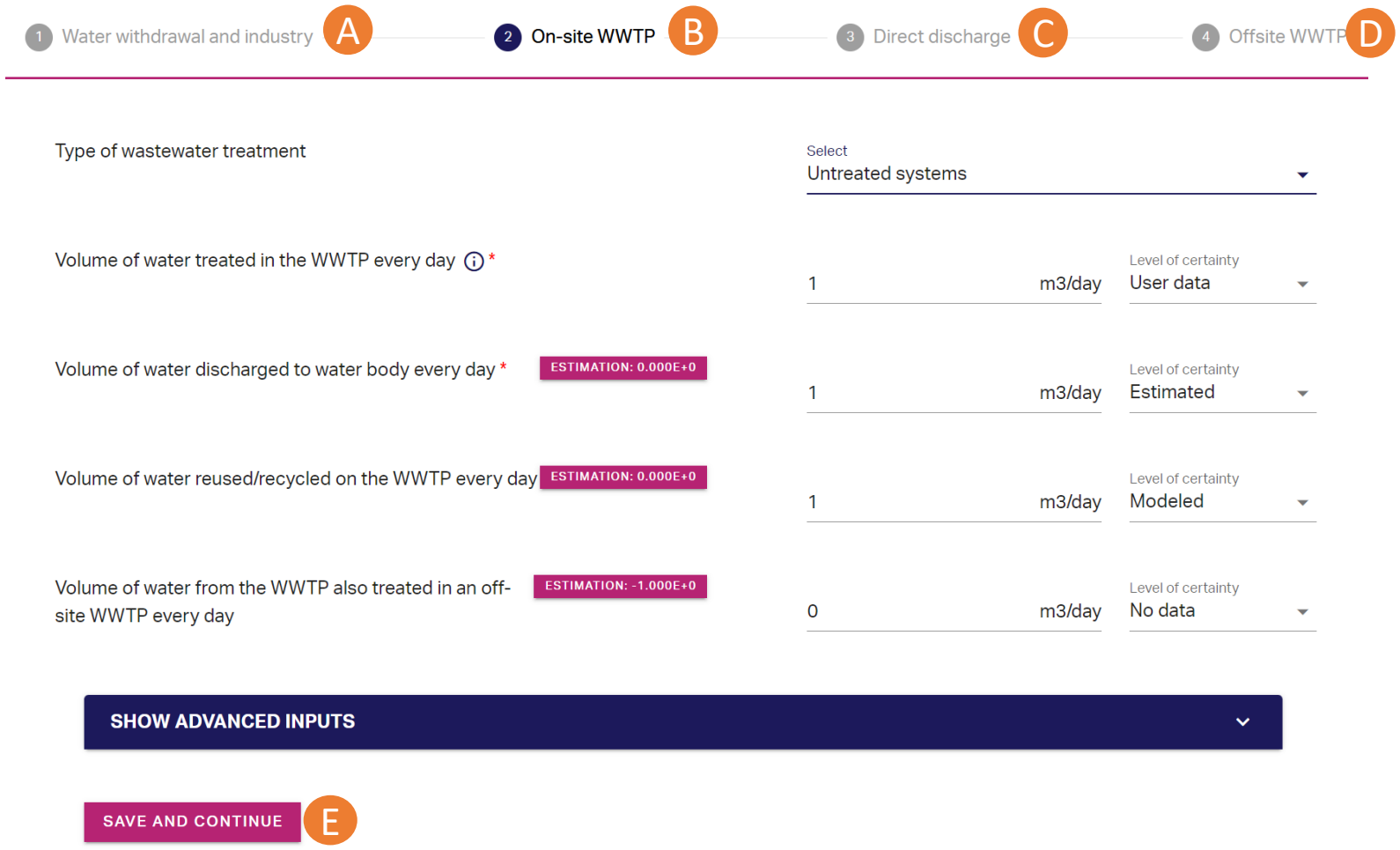
Step 5.2 – Add water and site-specific advanced data

1. To hide/show advanced data inputs, select **A**
2. To apply an estimation calculated by the tool, select **B**



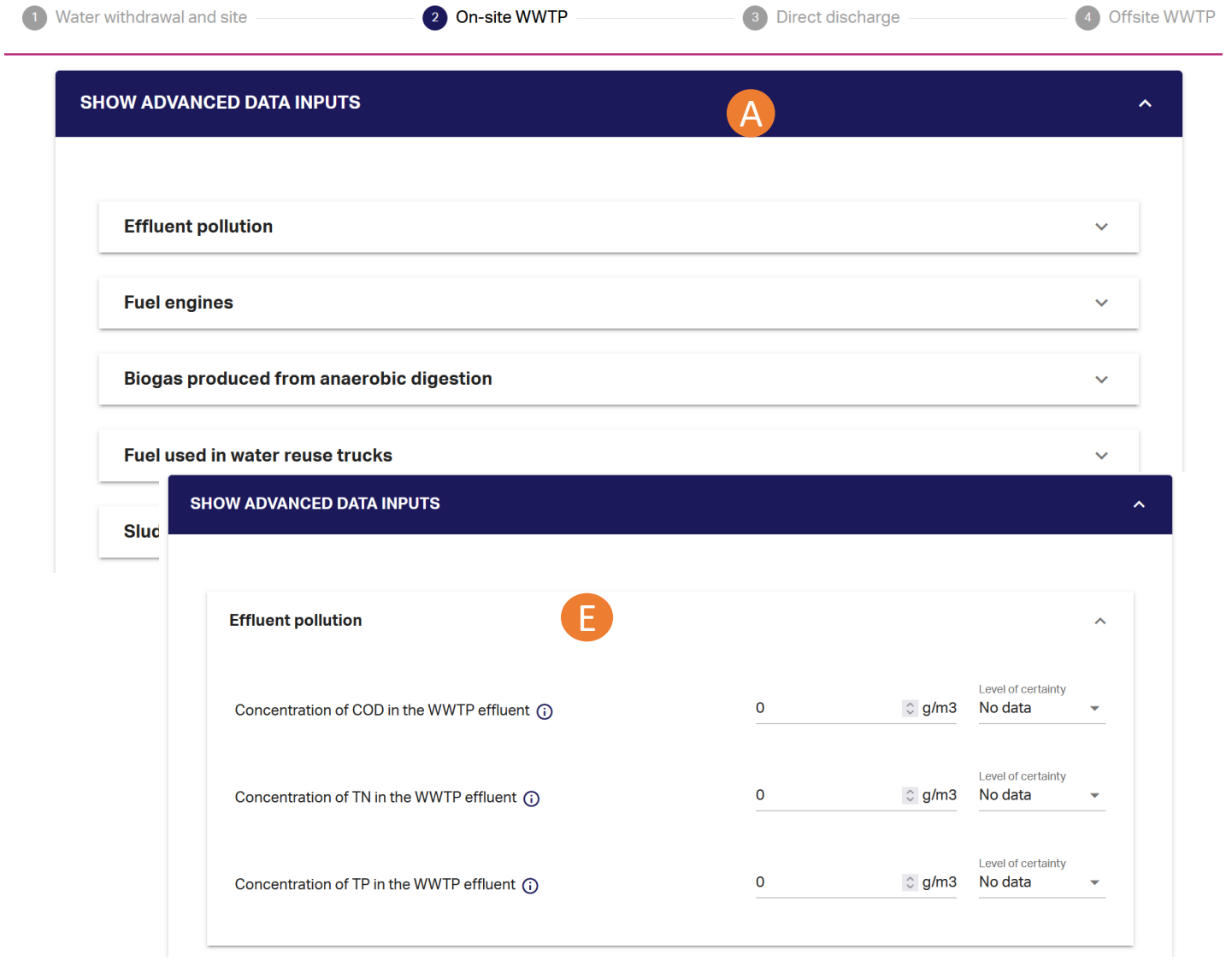
Step 6.1 – Add WWTP site-specific data

- After providing all your site data requested on the tab, selecting **E** will save your data and you will be redirected to the appropriate tab depending on your data.
- After completing all the tabs, you will be redirected to the site report page.
- You can switch between the tabs by selecting **A**, **B**, **C** and **D**

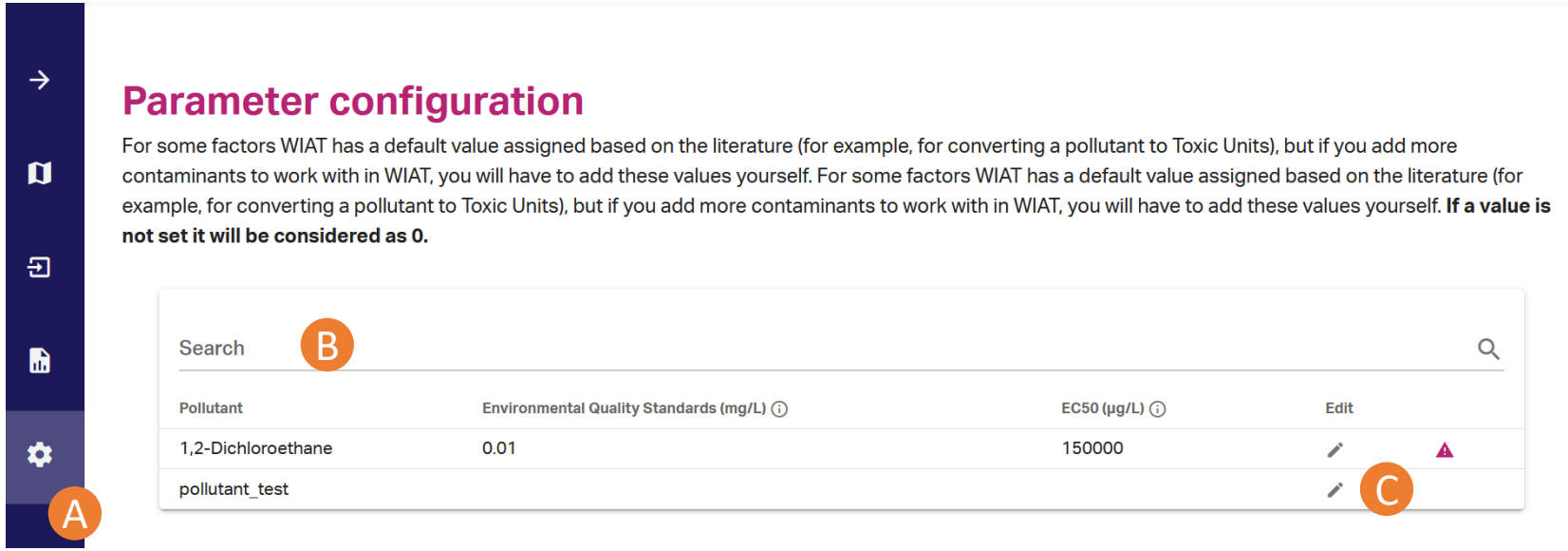


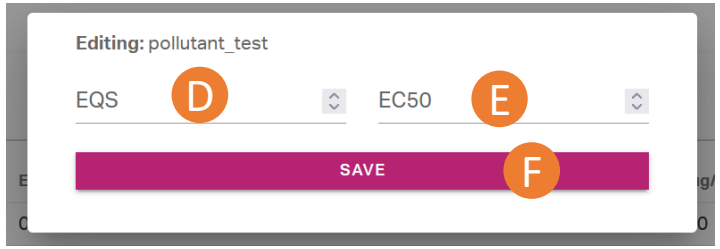
Step 6.2 – Add WWTP site-specific data

1. To hide/show the advanced data inputs, select **A**
2. To hide/show the requested data inside each categoty, select **B**



Step 7 – Configure Pollution Parameters

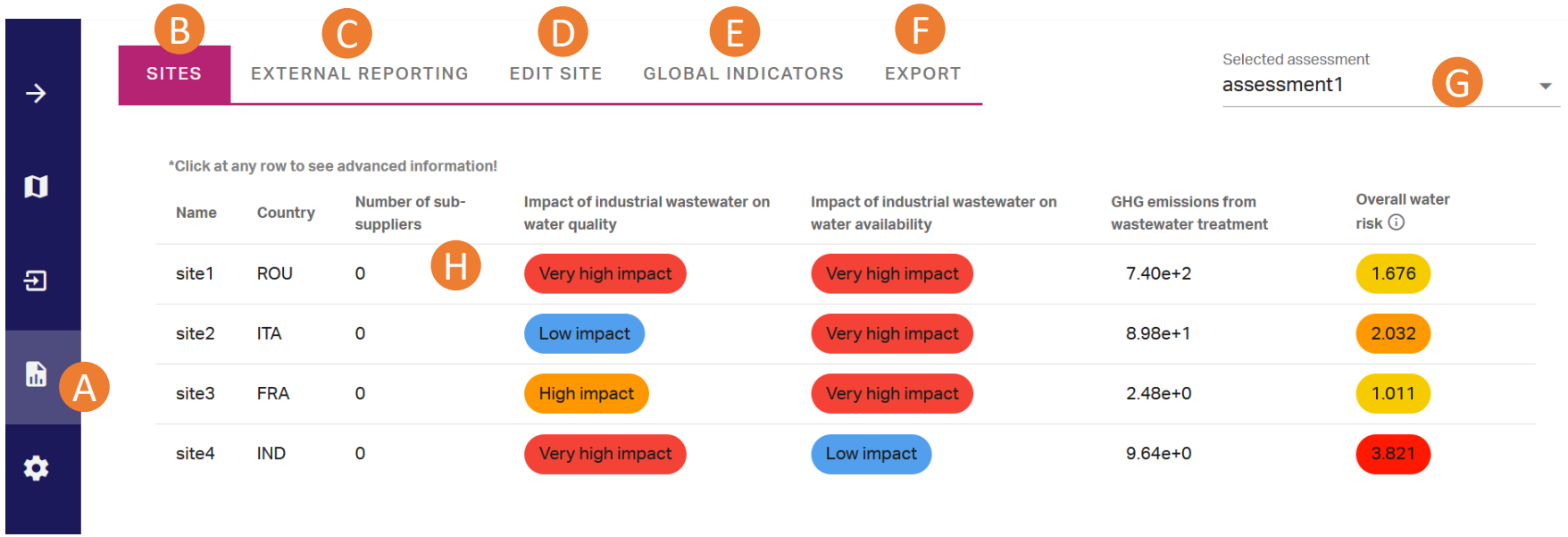




When adding new pollutants not added by default by the WIAT tool, users should add conversion factors for EQS and TU for these additional pollutants. Although not recommended, user can modify existing EQS and TU.

1. Select **A**
2. Enter the name of the pollutant to edit in **B**
3. Select **C**
4. Enter the conversion factors for working with the EQS **(D)** and **(E)**
5. Select **F** for saving the new values

Step 8 – General Report



1. Access to your general report by selecting **A**

2. From here, you have several options:

   I. Display summary of the change in the state of nature caused by the sites included in the selected assessment **(B).** Selecting each row **(H)** will allow the user to access to each site report

   II. Show external reporting **(C)**

   III. Select site for modifying its data inputs **(D)**

   IV. Show global indicators of the sites and its sub suppliers **(E)**

   V. Export the report in PDF **(F)**

   VI. Select another assessment **(G)**

Step 9.1 – Site report

A. Select to show impact and levers for action data

B. Select to show context data for the site

C. Switch between indicators related to water quality, water availability or GHG emissions

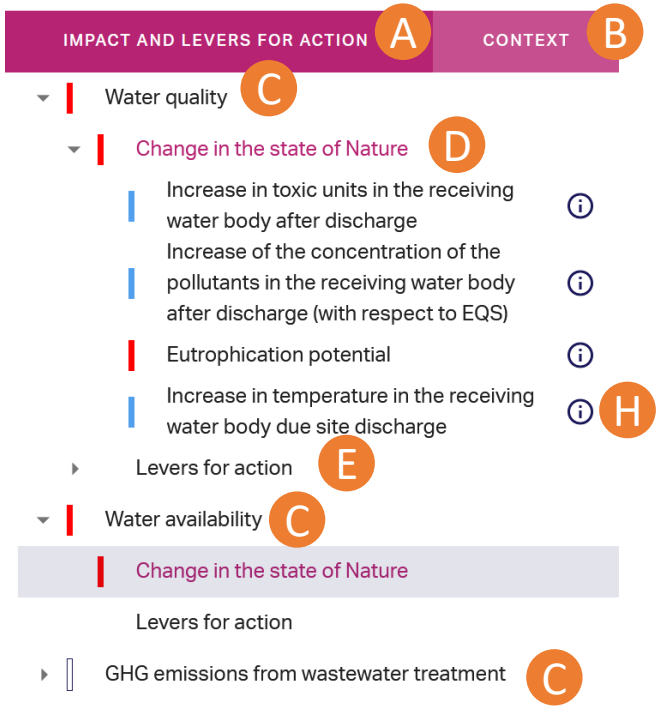
D. Select to open/display impact indicators

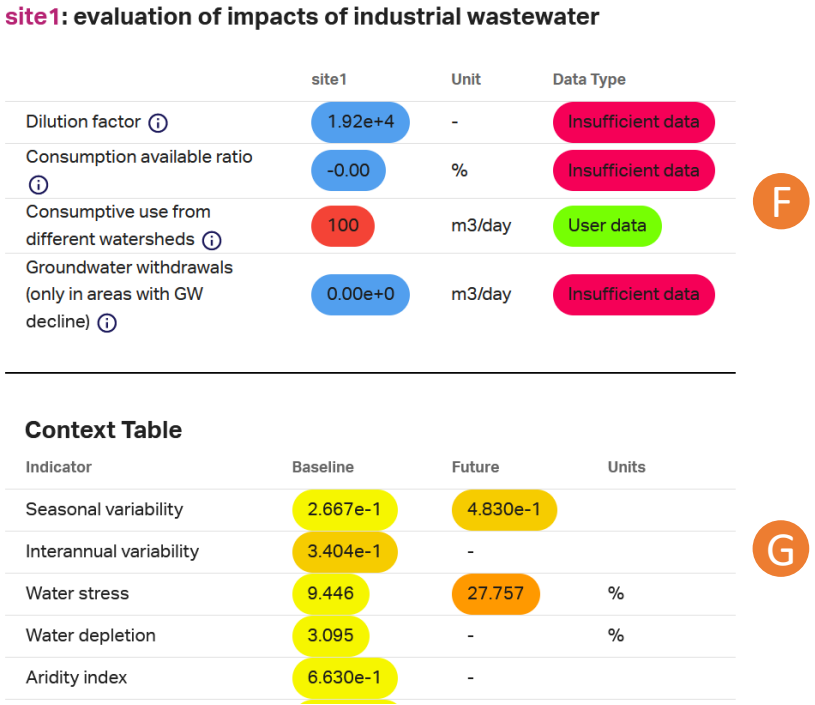
E. Select to open/display ‘levers for action’ indicators

F. Selected indicators

G. Global layers related to selected indicators

H. Information on the indicator





Step 9.2- Site report Impact indicators

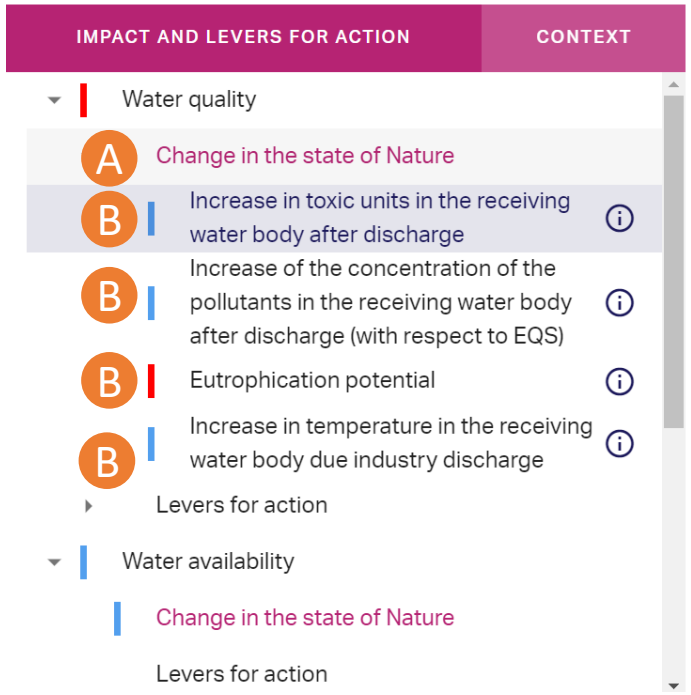
A. Select to open impact indicators

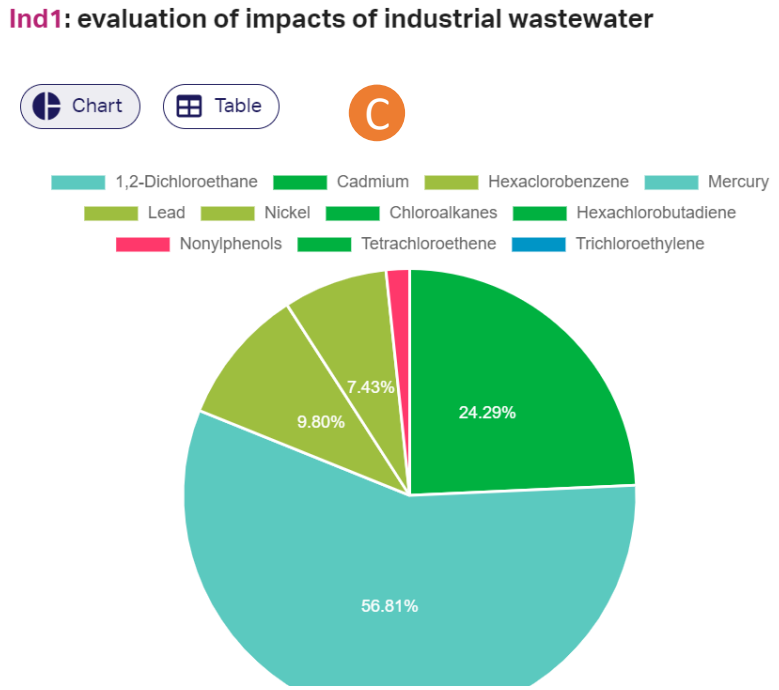
B. Display impact indicator

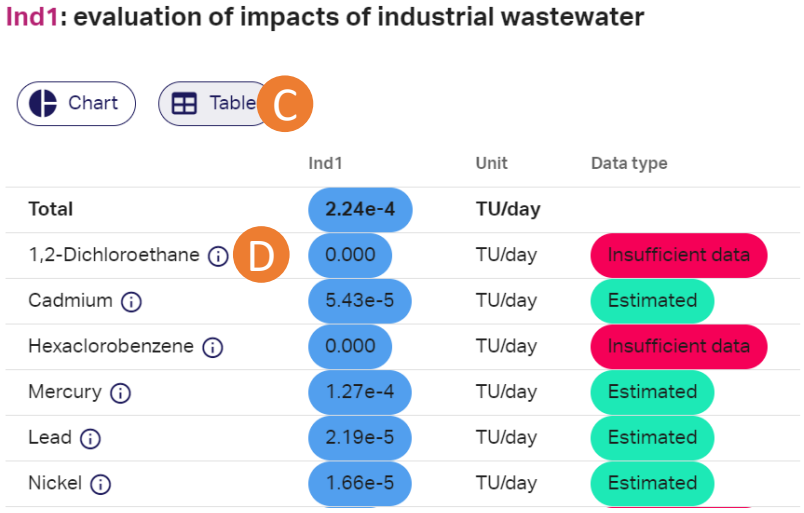
C. Select to switch between chart or tabular format

D. Button to show additional information

E. Information displayed when clicked the information button







Ecotoxicity profile for 1,2-Dichloroethane E

$$\frac{\sum_{i \in DP} 1,2-Dichloroethane_{effl_i}}{W_a - W_w + \sum_{i \in DP} W_{effl_i}} \cdot \frac{1}{EC50_{1,2-Dichloroethane}} \cdot 1000$$

Where:

- DP: onsite and external WWTP's, and directly discharged water
- $1,2-Dichloroethane_{effl}$: load of 1,2-Dichloroethane of water discharged to the same water body from which it was withdrawn
- W_{effl}: Amount of water discharged into the same watershed from which it was withdrawn
- $EC50_{1,2-Dichloroethane}$: $150000 \mu g/L$
- W_a: amount of water available in the river **(streamflow global indicator)**
- W_w: amount of water withdrawn from the river

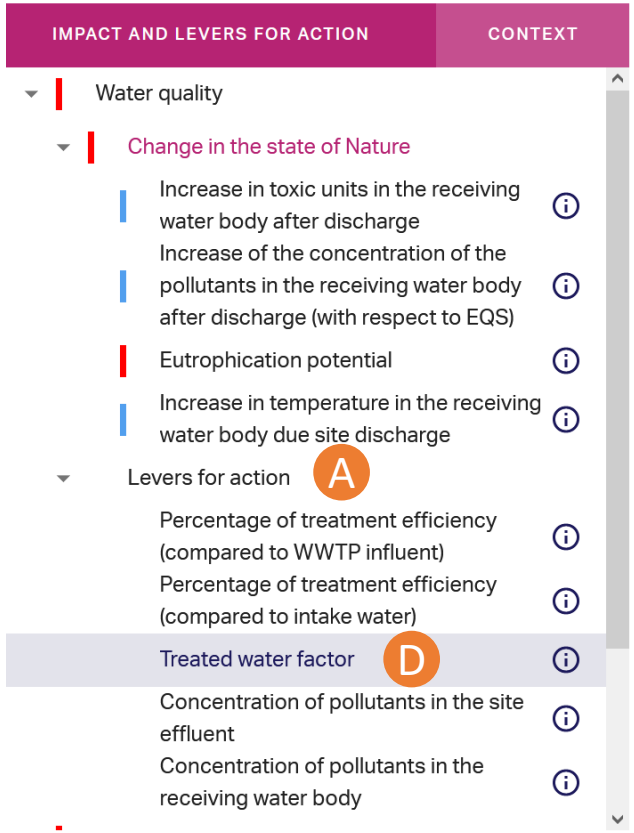
Step 9.3 – Site report Levers for action

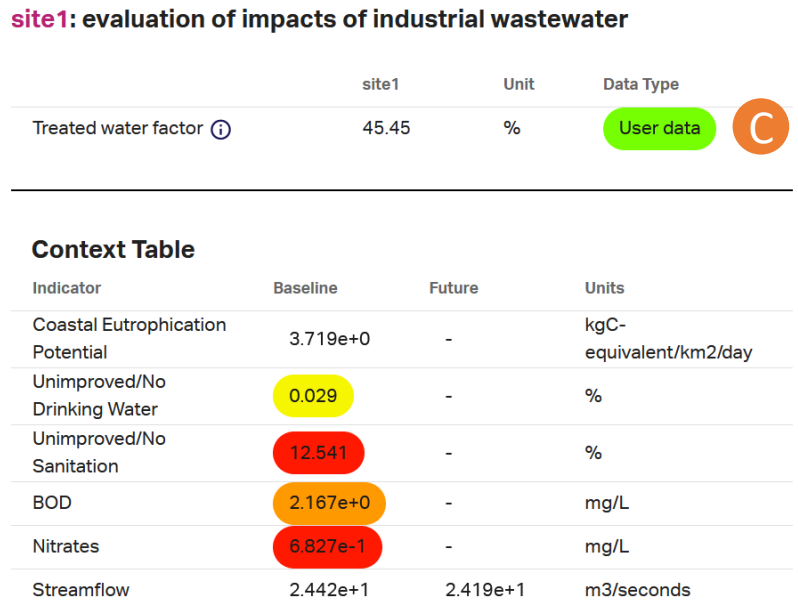
A. Hide/Show ‘levers for action’ indicators

B. Display indicator

C. Selected indicator

D. Global layers related to selected indicator

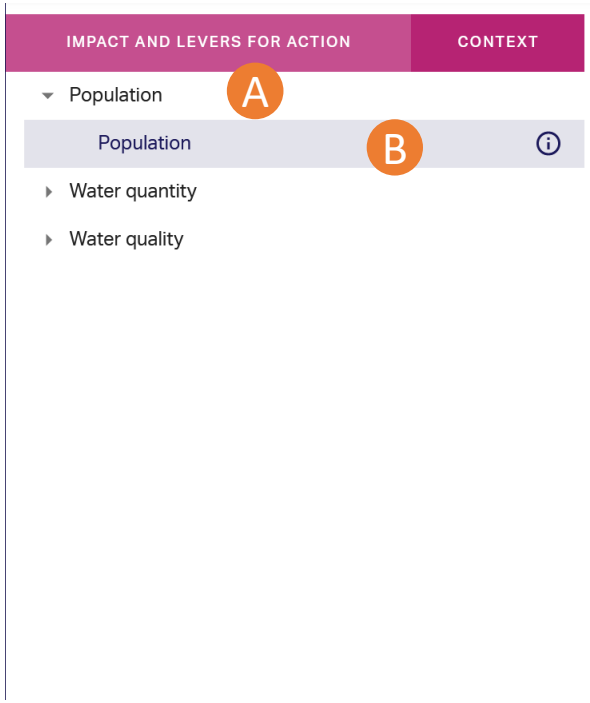


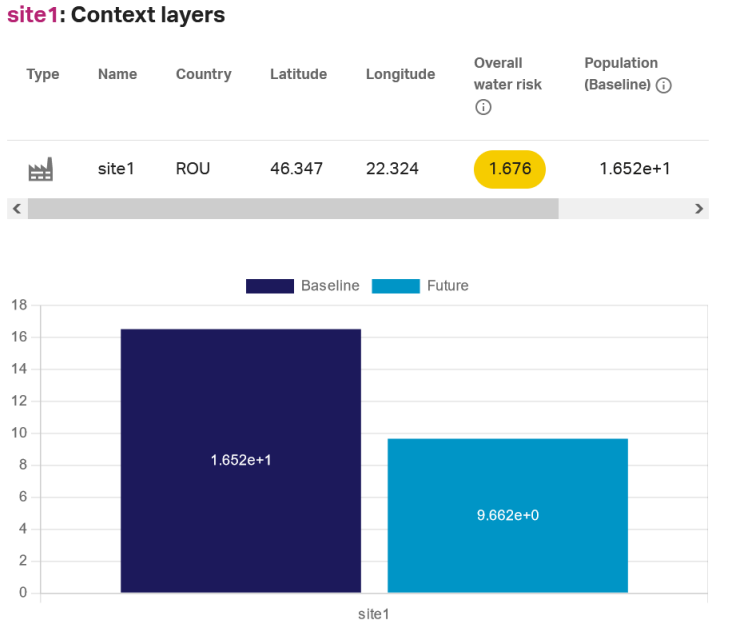


Step 9.4 – Site report Context

A. Hide/Show groups of global layers

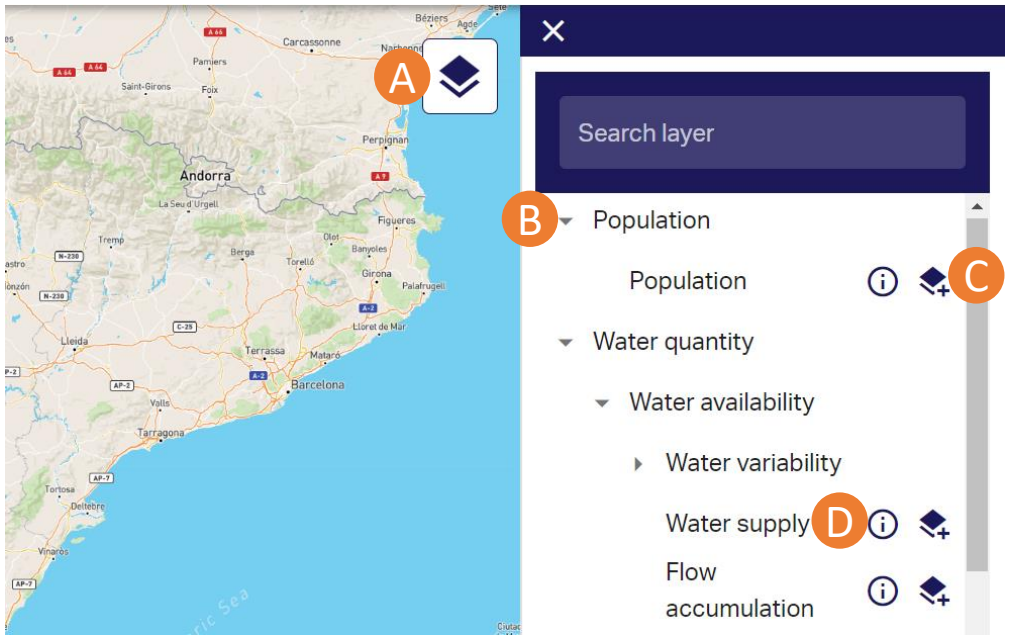
B. Apply global layers



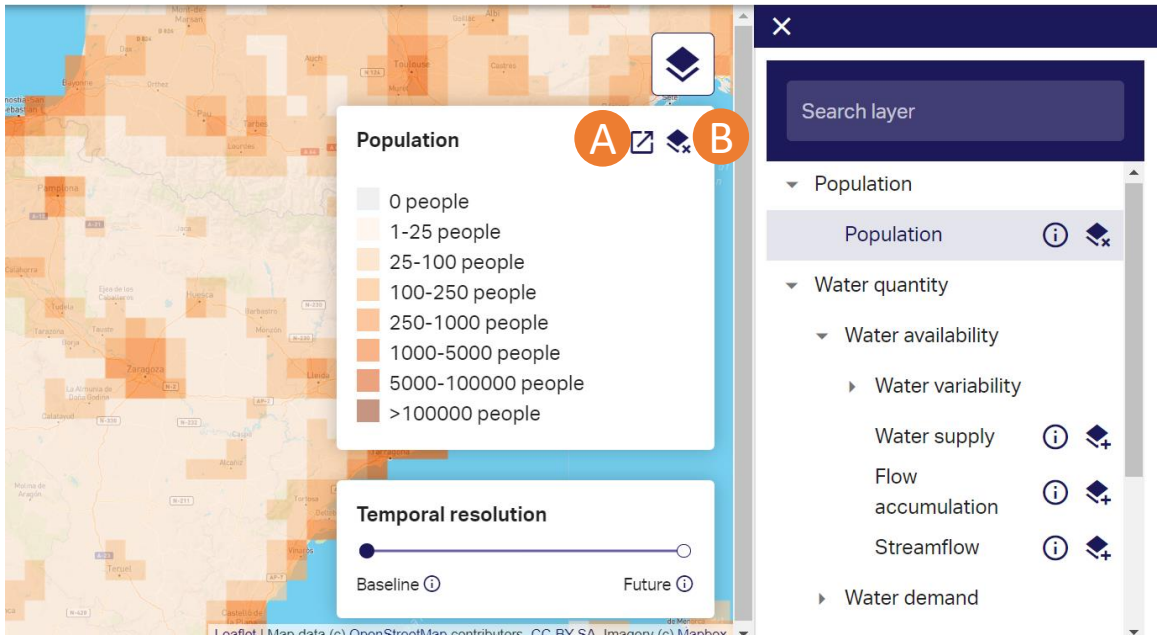


Global contextual indicators

Clicking on the global indicators icon (A) Will open a new tab on the right side of the page



A. Global indicator icon, click to open/close the indicators tab
B. Button to display or minimize the different groups inside the indicator
C. Button to add the global indicator layer on the map
D. Button (i) displays the information tab on the indicator



A. Button to go to the source of the information displayed
B. Button to remove the indicator

Get report in PDF

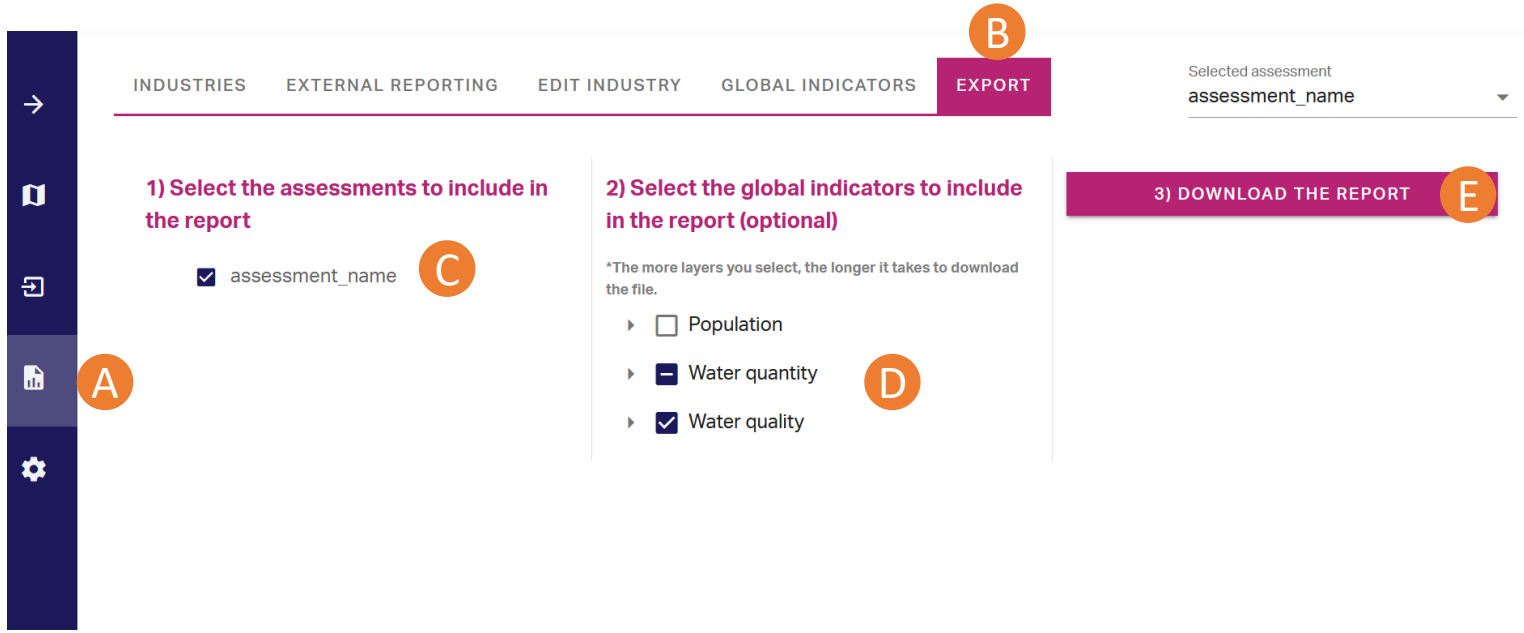
A. Select ‘Report’ button

B. Select ‘Export’ tab

C. Select the assessments you want to include in the report

D. Select to global indicators you want to include in the report

E. Select the button to download PDF

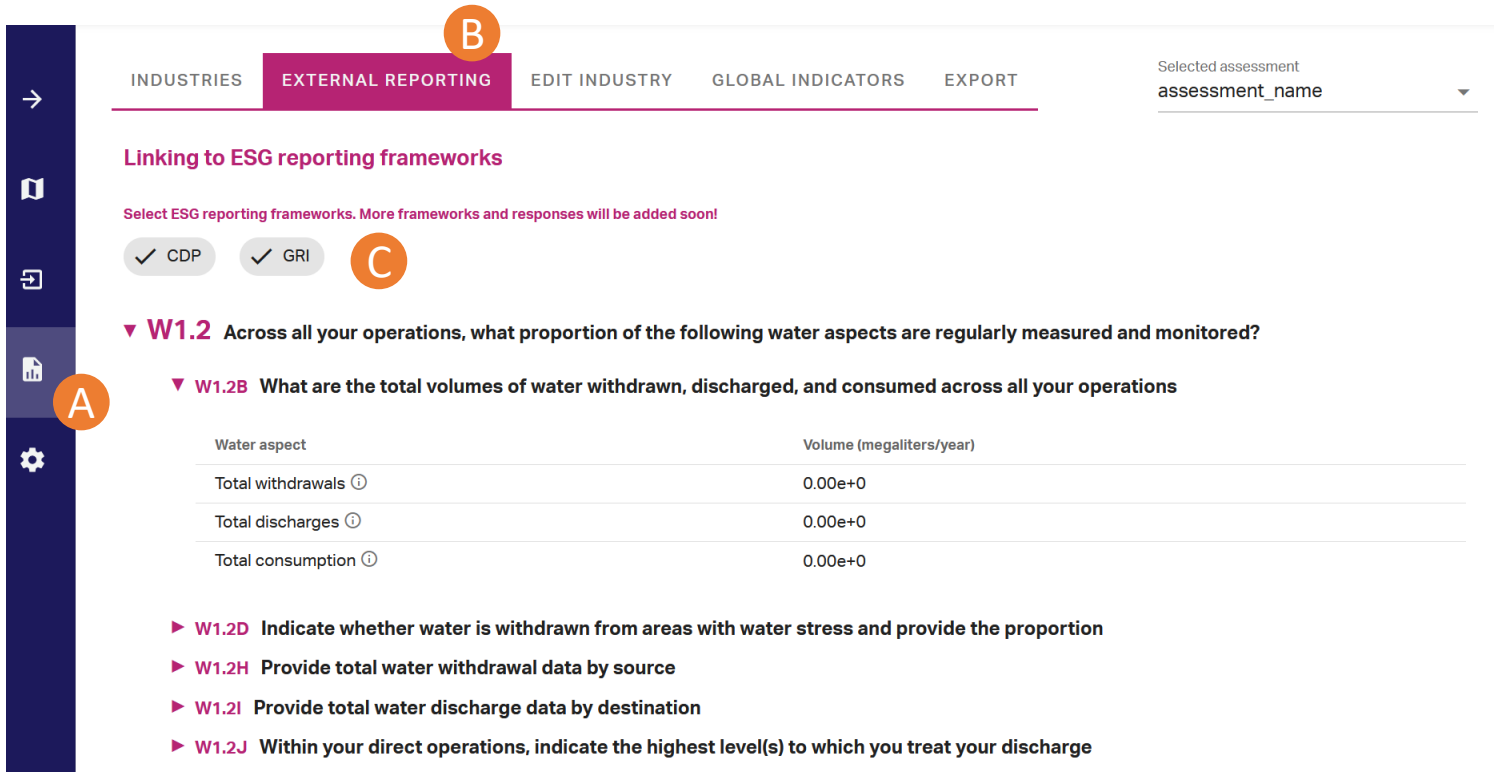


External reporting

A. Select ‘Report’ button

B. Select ‘External reporting’ tab

C. Select the frameworks you wish to see



Edit assessments, sites and sub suppliers

To edit an assessment, site or sub supplier user must select it (either from the assessment list menu or selecting it on the map). The following is the specific case of a sub supplier:

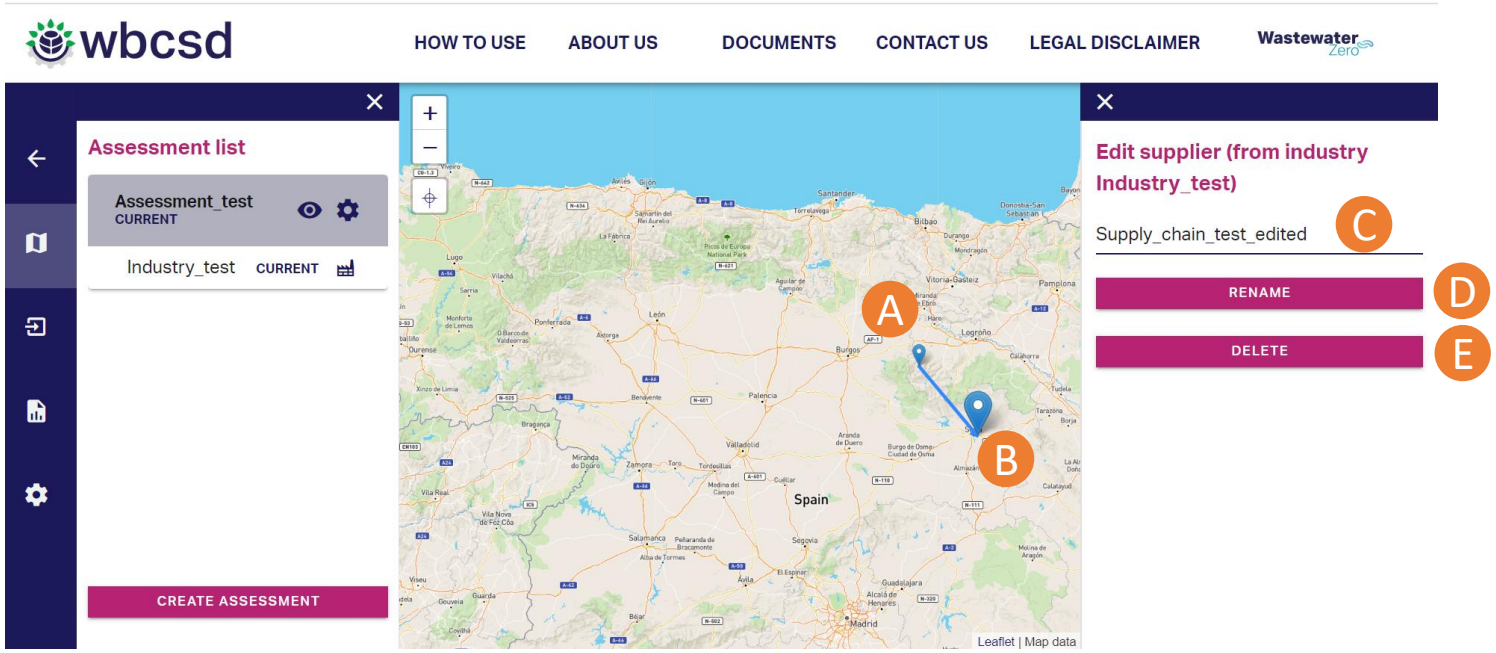
A. Sub supplier we want to edit

B. Site to which the sub supplier is associated

C. Name of the sub supplier (enter a new one to modify it)

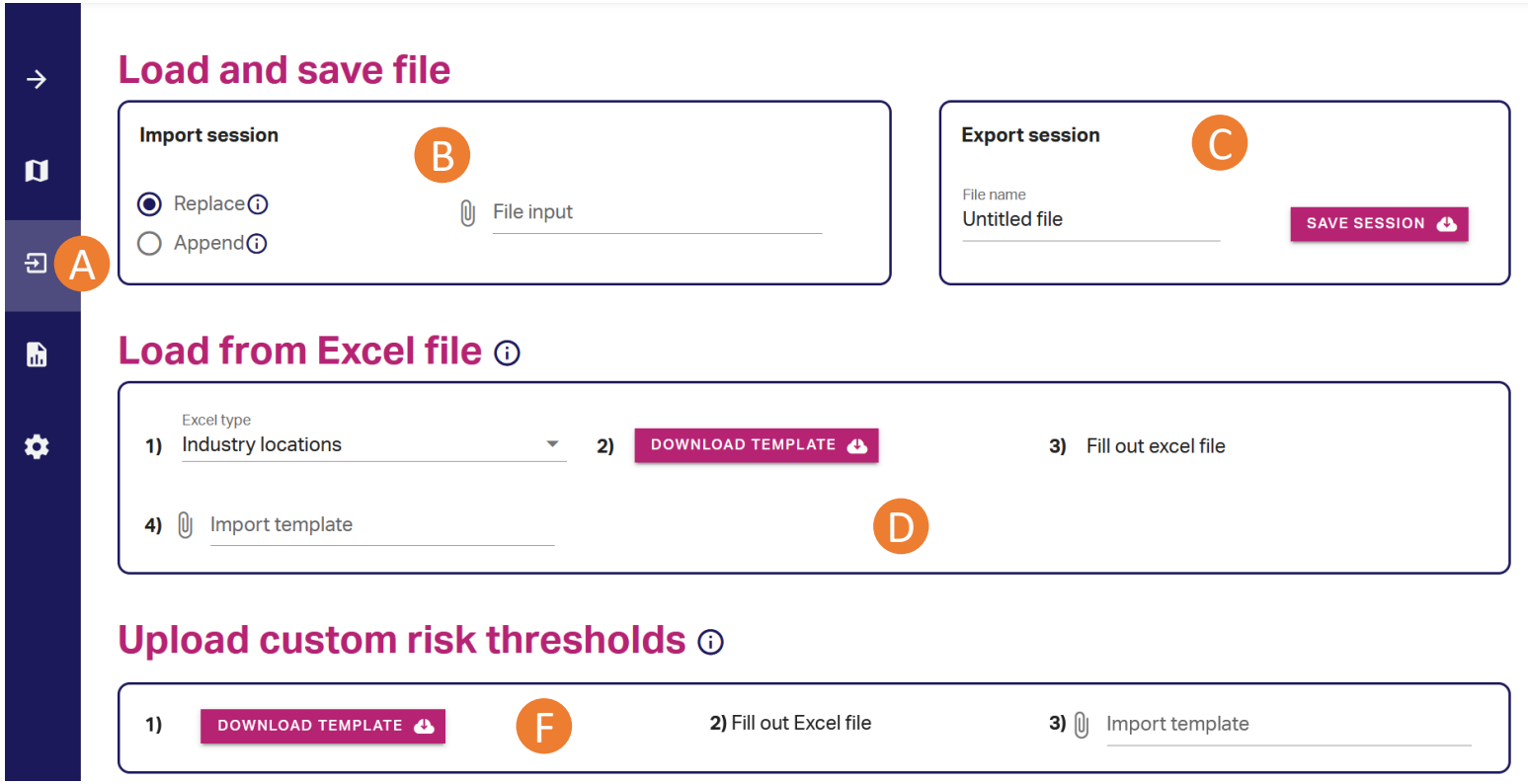
D. Press to save the new name

E. Delete the sub supply



Import/export

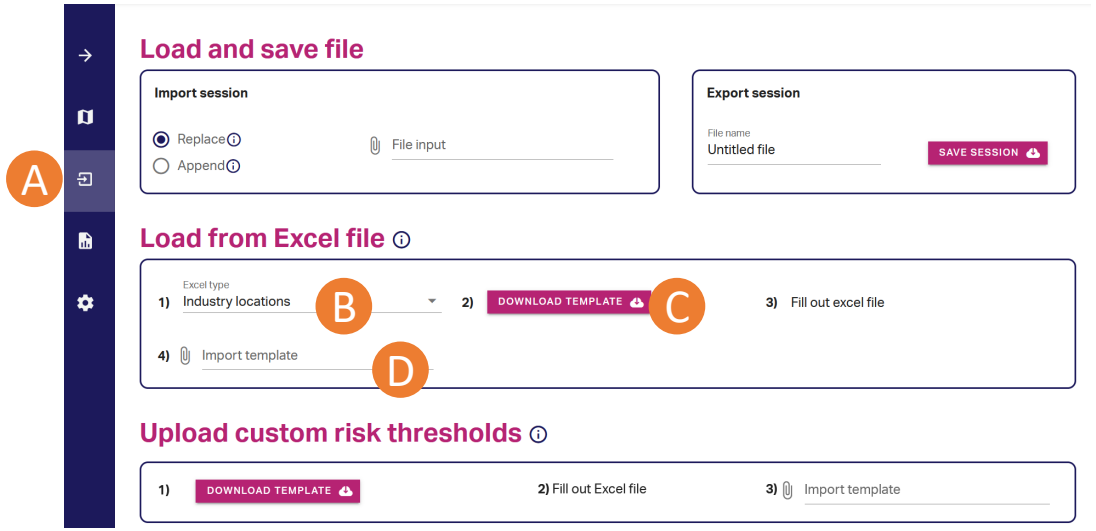
1. Selecting button **A,** you can:
   - I. Importing a previously stored version **(B)**
   - II. Download the current session in a JSON file **(C)**
   - III. Create assessments and site locations - **Step A – Download Excel template "Site locations**- , as well as add site data inputs -**Step B - Download Excel template "water and WWTP site specific data (input)"** – using Excel files **(D)**
   - IV. Modify custom impact thresholds **(F)**

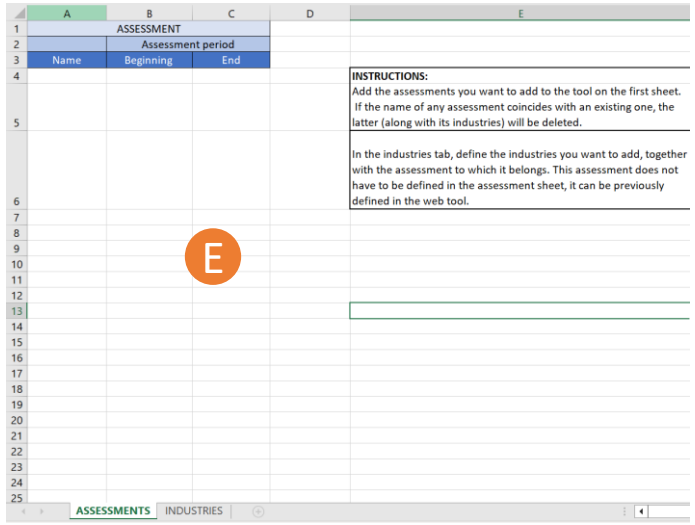


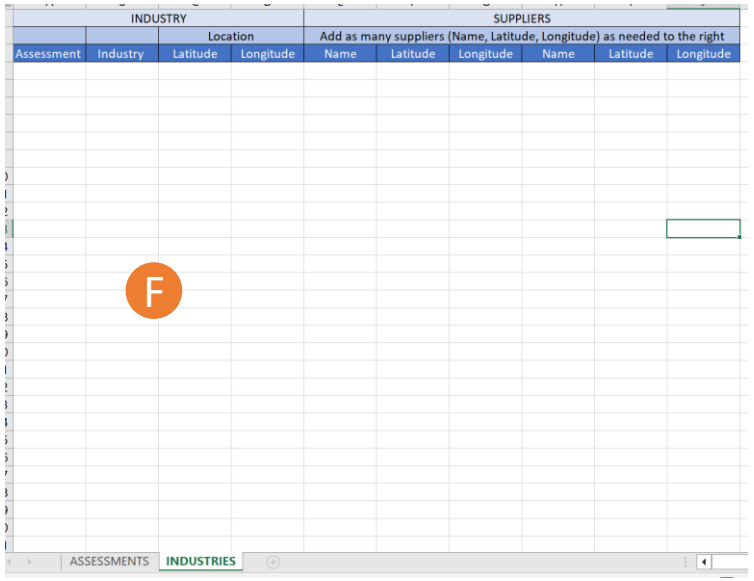
Step A – Download Excel template “Site locations”

For creating assessments and locating sites using Excel files:

1. Go to import/export **(A)**
2. Select site locations (**B**)
3. Select “Download template” **(C)**
4. Fill out the excel template. In the first tab, add the information related to the assessment **(E),** and in the second, information related to the sites **(F)**
5. Upload the template in **D**



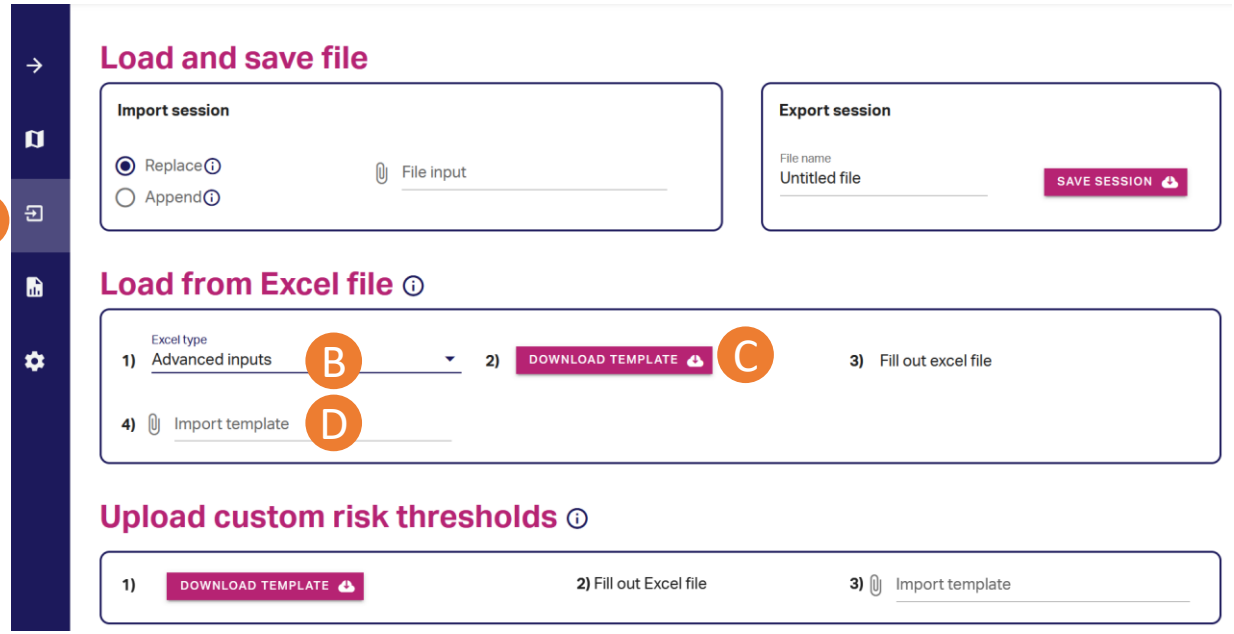


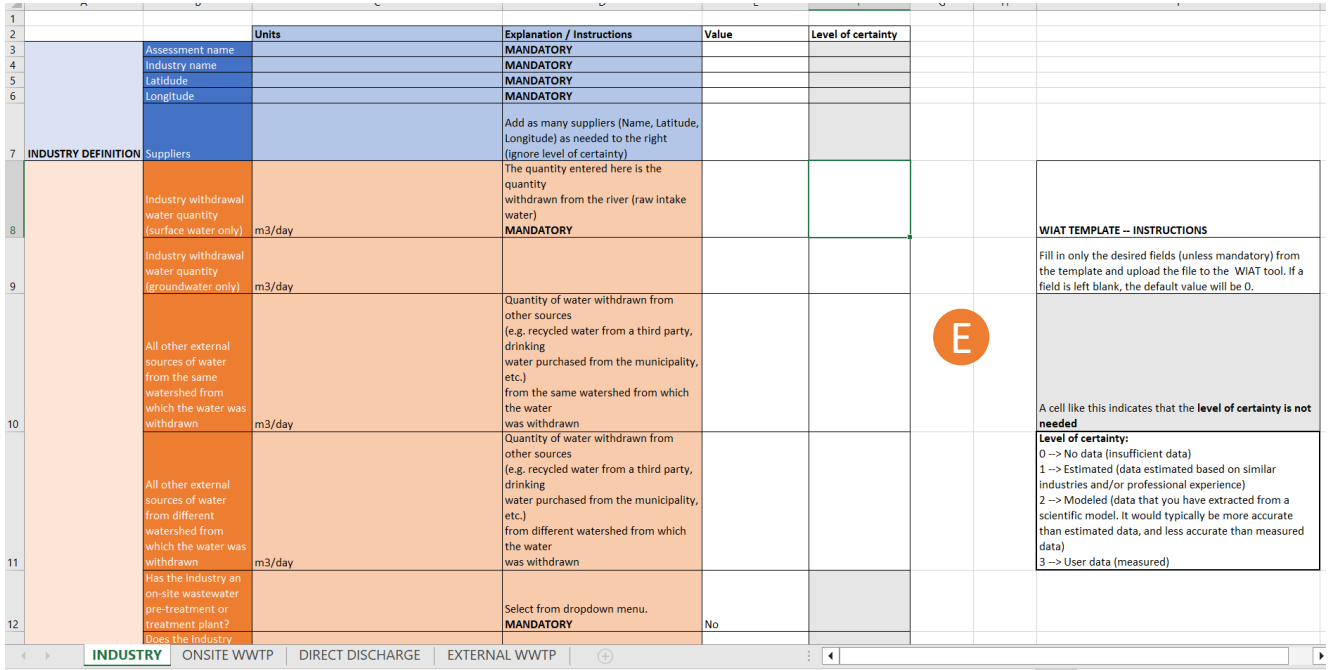


Step B - Download Excel template “WWTP site specific data (input)”

For locating new sites into already created assessments, alongside with its site data inputs:

1. Go to import/export **(A)**
2. Select “Advanced inputs”(**B**)
3. Select “Download template” **(C)**
4. Fill out the excel template **(E).** In the first tab, fill out the information related to the site, and in the following tabs (if needed), add the data related to onsite WWTP, Directly discharge water and external WWTP.
5. Upload the template in **D**





			Units	Explanation / Instructions	Value	Level of certainty
		Assessment name		MANDATORY		
		Industry name		MANDATORY		
		Latidude		MANDATORY		
		Longitude		MANDATORY		
7	INDUSTRY DEFINITION	Suppliers		Add as many suppliers (Name, Latitude, Longitude) as needed to the right (ignore level of certainty)		
8		Industry withdrawal water quantity (surface water only)	m3/day	The quantity entered here is the quantity withdrawn from the river (raw intake water) MANDATORY		
9		Industry withdrawal water quantity (groundwater only)	m3/day			
10		All other external sources of water from the same watershed from which the water was withdrawn	m3/day	Quantity of water withdrawn from other sources (e.g. recycled water from a third party, drinking water purchased from the municipality, etc.) from the same watershed from which the water was withdrawn		
11		All other external sources of water from different watershed from which the water was withdrawn	m3/day	Quantity of water withdrawn from other sources (e.g. recycled water from a third party, drinking water purchased from the municipality, etc.) from different watershed from which the water was withdrawn		
12		Has the industry an on-site wastewater pre-treatment or treatment plant?		Select from dropdown menu. MANDATORY	No	
		Does the industry				

E

WIAT TEMPLATE -- INSTRUCTIONS

Fill in only the desired fields (unless mandatory) from the template and upload the file to the WIAT tool. If a field is left blank, the default value will be 0.

A cell like this indicates that the **level of certainty is not needed**

Level of certainty:
0 --> No data (insufficient data)
1 --> Estimated (data estimated based on similar industries and/or professional experience)
2 --> Modeled (data that you have extracted from a scientific model. It would typically be more accurate than estimated data, and less accurate than measured data)
3 --> User data (measured)

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