WASHINGTON STATE DEPARTMENT OF ECOLOGY

July 2026

CONDITIONAL USE LEVEL DESIGNATION FOR BASIC (TSS) AND PHOSPHORUS TREATMENT

For

Atlan Stormwater
ATLAN Flowguard

Ecology's Decision

Based on the Atlan Stormwater (Atlan) application submissions for the ATLAN Flowguard, Ecology hereby issues the following use level designation:

1) Conditional Use Level Designation (CULD) for Basic and Phosphorus Treatment.
   - Sized at a hydraulic loading rate of 0.5 liters per second (L/s) (7.92 gpm) per module

2) Maintenance data collected during the initial TAPE GULD testing and the post GULD maintenance assessment demonstrated the system as able to treat the following percentage of a water year before needing maintenance:

	Site Location	Land Use	Average TSS (mg/L)	D_{50} PSD (µm)	Maintenance Cycle[1] (% water year)
GULD Testing[2]					
Maintenance[3] Assessment					

[1] Ecology recommends considering maintenance cycle information when sizing the system. Sizing may need to be increased to meet the project, permit, or jurisdiction maintenance cycle.
[2] GULD testing has not yet been completed.
[3] Maintenance assessment data will be collected after the ATLAN Flowguard receives the GULD.

3) Ecology approves the ATLAN Flowguard for treatment at the above flow rates. The designer shall calculate the water quality design flow rates using the following procedures:
   - Western Washington: For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using the latest version of the Western Washington Hydrology Model or other Ecology- approved continuous runoff model and as described in section II-2.6 of the Stormwater Management Manual for Western Washington (SWMMWW).
   - Eastern Washington: For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using one of the three methods described in Chapter 6.5.1 of the Stormwater Management Manual for Eastern Washington (SWMMEW) or local manual.

- Entire State: For treatment installed downstream of detention, the water quality design flow rate is the full 2-year release rate of the detention facility.

4) The Use Level Designation expires on July 31, 2030 unless extended by Ecology, and is subject to the conditions specified below.

Ecology's Conditions of Use

The ATLAN Flowguard shall comply with these conditions:

1) Applicants shall design, assemble, install, operate, and maintain the ATLAN Flowguard in accordance with Atlan design criteria and the Ecology Decision.
2) ATLAN Flowguard design shall conform to the specifications submitted to and approved by Ecology.
3) Install the ATLAN Flowguard in such a manner that you bypass flows exceeding the maximum operating rate and you will not resuspend captured sediment.
4) Atlan commits to submitting a QAPP for Ecology approval by February 28, 2027 that meets TAPE requirements for attaining a GULD for Basic and Phosphorus Treatment.
5) Atlan shall complete all required testing and submit a TER for Ecology review by April 30, 2030.
6) Atlan may request Ecology to grant a deadline or expiration date extension, upon showing cause for such extensions.
7) Discharges from the ATLAN Flowguard shall not cause or contribute to water quality standards violations in receiving waters.

Applicant:	Atlan Stormwater
Applicant's Address:	130 Sandstone Place, Parkinson QLD 4115 Australia

Application Documents:

Emerging Stormwater Treatment Technologies Application for Certification: ATLAN Flowguard, June 2026

ATLAN Stormwater Field Monitoring of ATLAN Flowguard, Summary Submission for Washington Department of Ecology TAPE Program, May 2026

Field Monitoring of a SPEL HydroChannel at University of Sunshine Coast, SQIDEP Supporting Information, March 2021

Final Report on: Evaluation of Treatment Performance of SPEL HydroChannel at Sippy Downs, University of the Sunshine Coast, May 2018

Applicant's Use Level Request:

- Conditional Use Level Designation as a Basic and Phosphorus Treatment device in accordance with Ecology's *Stormwater Management Manual for Western Washington.*

Applicant's Performance Claims:

Based on field testing at treatment flow rates outlined in the Ecology Decision #1, the ATLAN Flowguard will meet TAPE performance goals for TSS and total phosphorus.

Ecology's Recommendations:

Ecology finds that:

- Atlan Stormwater qualifies for the opportunity to demonstrate, through field-testing in the Pacific Northwest or at an approved TAPE testing facility, whether the ATLAN Flowguard can attain Ecology's Basic and Phosphorus treatment goals at a treatment flow rate outlined in Ecology Decision #1.

Findings of Fact:

Field Testing

- The ATLAN Flowguard (formerly SPEL HydroChannel) was tested by the University of the Sunshine Coast at a commercial carpark at the University campus in Sippy Downs, QLD. The protocol for the testing was developed prior to the implementation of the Stormwater Australia Stormwater Quality Improvement Device Evaluation Protocol (SQIDEP) however it was intended to be compliant with it.
- The testing was completed between August 2016 and April 2018 on an ATLAN Flowguard that contained 3 modules. A total of 28 composite samples were collected for TSS and total phosphorus.
    - The average D_{50} of the influent PSD was 227 um.
    - Influent TSS concentrations ranged from 15 mg/L to 2130 mg/L with a mean concentration of 255 mg/L. Influent concentrations greater than 200 mg/L, the upper limit of the TAPE allowed influent range, were capped at 200 mg/L before calculating pollutant removal. After capping the influent concentrations, the average TSS reduction was 84 percent. When excluding samples with influent concentrations below 20 mg/L (the lower end of the TAPE range) the average TSS reduction was 85 percent.
    - Influent total phosphorus concentrations ranged from 0.04 mg/L to 2.48 mg/L with a mean concentration of 0.33 mg/L. Influent concentrations greater than 0.5 mg/L, the upper limit of the TAPE allowed influent range, were capped at 0.5 mg/L before calculating pollutant removal. After capping the influent concentrations, the average total phosphorus reduction was 67 percent. When excluding samples with influent concentrations lower than 0.1 mg/L (the lower end of the TAPE range) the average total phosphorus reduction was 69 percent.

Other ATLAN Flowguard matters Ecology recommends be addressed by the Company:

1. Test the system under normal operating conditions, such that pollutants partially fill the system. Results obtained for "clean" systems may not be representative of typical performance.
2. Conduct field-testing at a site that is indicative of the treatment goals.
3. Conduct testing to obtain information about maintenance requirements in order to come up with a maintenance cycle.

Technology Description:

https://atlanstormwater.com/au/flowguard /

Contact Information:

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Applicant website: https://atlanstormwater.com/au/

Ecology web link: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Emerging-stormwater-treatment-technologies

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Revision History

Date	Revision
July 2026	CULD granted for Basic and Phosphorus Treatment