



# AMENDED WASTEWATER SYSTEMS EFFLUENT REGULATIONS

CWWA – NWWC  
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Environment and  
Climate Change Canada

Environnement et  
Changement climatique Canada

Canada 

# WASTEWATER SYSTEMS EFFLUENT REGULATIONS

Came into force in  
2012

- National effluent quality standards came into effect in 2015
- Bring systems to secondary treatment level

~1,600 wastewater  
systems regulated

- Apply if a system collects an average daily wastewater volume of 100 m<sup>3</sup> /day or more (≈ 200-250 people)

The Regulations  
do not apply to:

- Very small systems
- Systems in NWT, NU, north of the 54th parallel in QC&NL
- Municipal and provincial systems in Yukon and Quebec with equivalency agreements



# WASTEWATER SYSTEMS EFFLUENT REGULATIONS

## Key components of the Regulations

- 1) Monitor the effluent
- 2) Meet national effluent quality standards
- 3) Complete and submit reports
- 4) Keep records on-site
- 5) Apply for an authorization
  - transitional authorizations
  - temporary bypass authorizations
  - transitional authorizations to deposit un-ionized ammonia

Deleterious Substances	Limits	
Carbonaceous Biochemical Oxygen Demand (CBOD)	(avg)	$\leq 25$ mg/L
Suspended Solids (SS)	(avg)	$\leq 25$ mg/L
Total Residual Chlorine	(avg)	$\leq 0.02$ mg/L
Un-ionized Ammonia	(max)	$< 1.25$ mg/L
<b>Effluent must not be acutely lethal</b>		

# AMENDMENTS TO THE REGULATIONS

- ECCCC initiated consultations and engagement on amendments to the Regulations in 2020
  - Draft Regulations published in Canada Gazette Part 1 in May 2023
- Focus of amendments on transitional and temporary authorizations and administrative changes

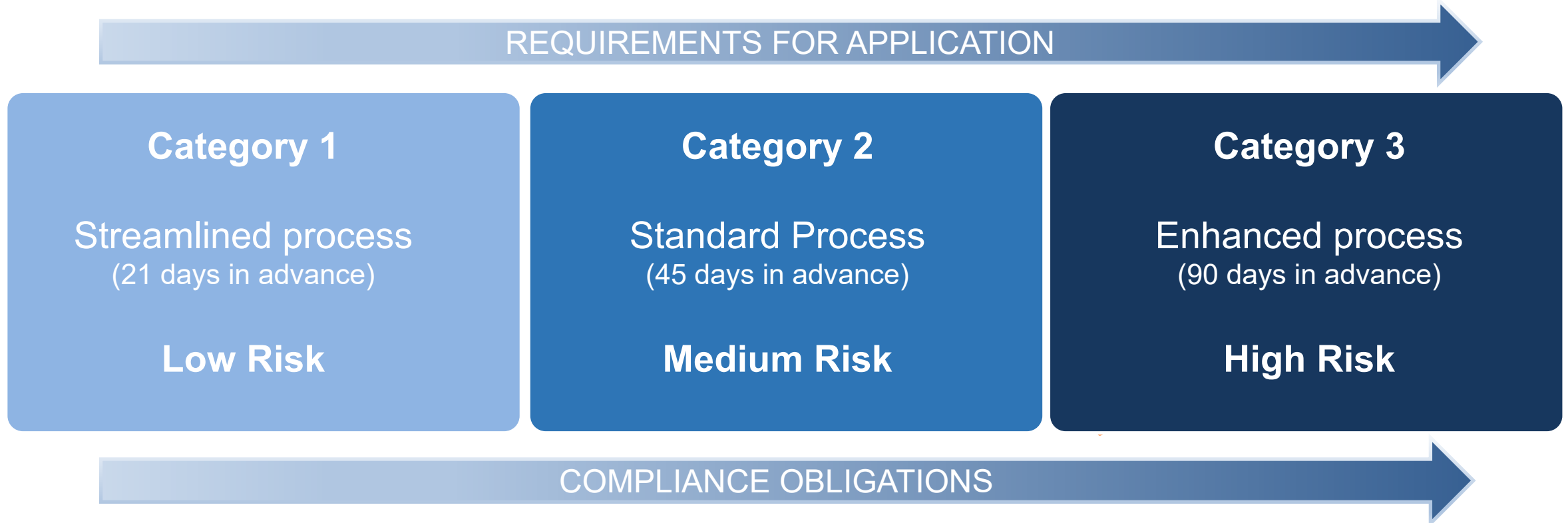
**Final amended Regulations were published on June 5, 2024**

# TEMPORARY BYPASS AUTHORIZATIONS

- Temporary bypass authorizations allow regulatees to bypass one or more treatment processes normally applied to wastewater that could result in an exceedance of WSER limits
- A regulatee can apply if:
  - the bypass is required for construction work, maintenance or an anticipated event outside the control of the regulatee, and
  - the bypass is designed to minimize volume of effluent deposited and concentration of deleterious substances
- A temporary bypass can be authorized from one or more **final discharge points or overflow points**
- ECCC may refuse to issue an authorization if there is reasonable grounds to believe that :
  - there would be adverse effects on fish, fish habitat or human use of fish that cannot be mitigated
- ECCC must refuse to issue an authorization if there is reasonable grounds to believe that :
  - information in the application is false or misleading or application was not made on time / is incomplete

# NEW TIERED APPROACH FOR AUTHORIZATIONS

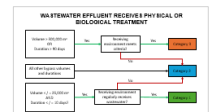
- Takes into consideration the level of risk of the planned release and sorts applications into one of three categories
- Based on volume, durations (work, release), effluent quality and type of receiving environment



# DETERMINING A BYPASS CATEGORY

Bypass category options are based on effluent quality:

1. Effluent receives physical or biological treatment
2. Effluent receives no treatment or only pretreatment
3. Effluent release(s) is due to precipitation events occurring during a period of reduced capacity of the wastewater system



# NOTIFICATION REQUIREMENTS

**All applicants must notify:** the public, and any communities or Indigenous groups that could be affected by the bypass or may use the receiving environment before, during or after the bypass

Notifications must be completed **before** applying for an authorization. Application must include:

- Summary or copy of notification, rationale for who has been notified, method(s) of communications and any responses received

## Considerations:

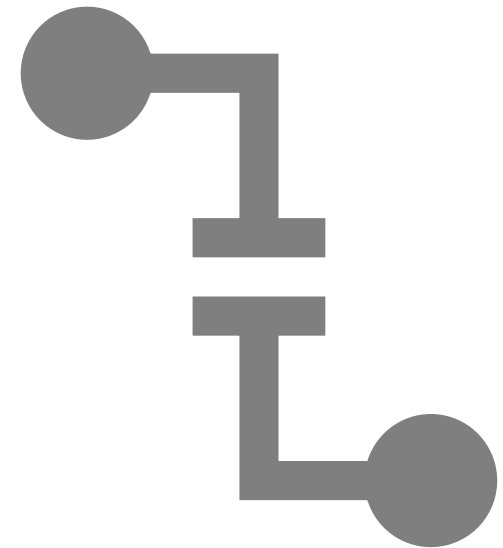
- What are the expected impacts of your planned bypass?
- How is the environment used? Who uses it?
  - e.g. drinking water sources, recreational activities, subsistence harvesting, cultural activities
- What existing approaches do you use for notification (social media, public websites, local media, emails etc.)?





# MITIGATION MEASURES

- All applications must include information on mitigation measures that will be implemented to avoid or reduce the effects of the bypass
  - installing temporary treatment, pumps and/or piping
  - continuing to provide partial or full treatment through other treatment processes
  - phasing work to allow for the most treatment scheduling the work during a period of low flow
  - avoiding a period when the receiving environment is more sensitive
- Mitigation measures should take into consideration if the release is in a sensitive receiving environment
  - Provincial, national, international, Indigenous considerations



# REQUIREMENTS ONCE A TBA IS ISSUED

- Meet the conditions of the authorization
  - Follow through with the mitigation and monitoring measures
- Meet compliance obligations
  - Continue to monitor and report under WSER
  - Requirement vary depending on location of the bypass - final discharge point(s) or overflow point(s)
- Submit a follow up report within 90 days
  - Actual duration, volume, treatment level (if any), mitigation measures, and if required, monitoring results and long-term prevention plan

# TRANSITIONAL AUTHORIZATIONS (TA)

- Amendments provide a new opportunity for eligible communities to apply for a transitional authorization to upgrade treatment facilities or construct new ones
  - Objective: to meet the effluent quality standards of the WSER through a secondary level of treatment
- Will provide communities an extension to upgrade their system by the end of:
  - 2030, for a medium risk system
  - 2040, for a low-risk system
- Higher risk systems that would have qualified for a TA by the end of 2020 are no longer eligible for a transitional authorization
- Those that already have a transitional authorization are also not eligible
- There is no longer a deadline to apply

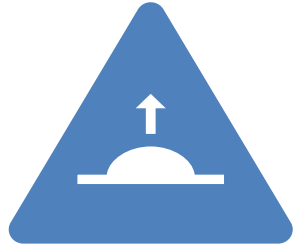
# TRANSITIONAL AUTHORIZATION ELIGIBILITY

A wastewater system is eligible for a TA if it:

- did not meet effluent limits for CBOD and/or suspended solids (SS) based on the earliest monitoring report(s) submitted to ECCC
- is still not meeting the CBOD and/or SS effluent limits
  - must have failed half or more of the monitoring reports submitted two years prior to the application
- is not designed to meet a secondary level treatment, and
- was impossible to upgrade before applying for the TA due to costs or technical constraints

**Applications made in the Effluent Regulatory Reporting Information System (ERRIS)**

# REQUIREMENTS ONCE A TA IS ISSUED (CONT'D)



## Submit monitoring reports

Reporting frequency depends on type and size of system

Continuous systems discharging  $\leq$  2,500 m<sup>3</sup>/day have reduced monitoring and reporting frequency to annually (instead of quarterly)



## Submit progress reports

Describe the progress made to upgrade the wastewater system and meet the national effluent standards

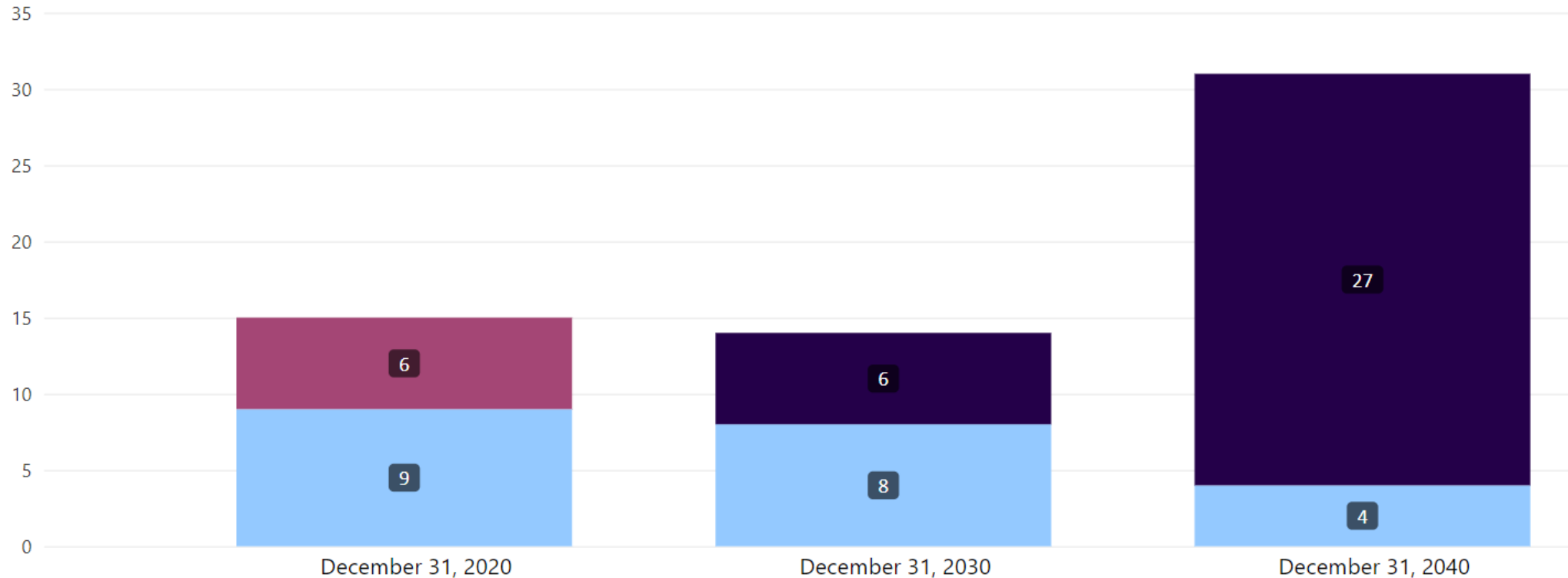
Submit every 2 years (previously required every 5 years)

Every July 1 of every even-numbered year, starting in 2026



# TRANSITIONAL AUTHORIZATIONS

Status ● Completed ● Expired ● In progress



65 TAs issued in 2014,  
12 systems have  
upgraded



Since the amendments  
came into force in 2024,  
two TAs have been  
issued



Several other TA  
applications are already  
in progress

*Five transitional authorizations are covered by an equivalency agreement with the province of Quebec*

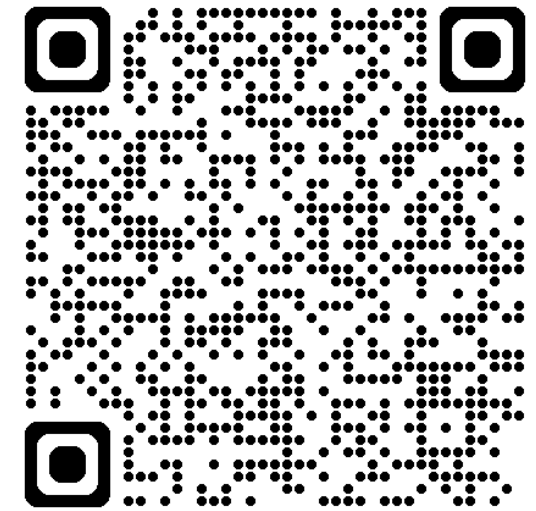
# ADMINISTRATIVE AMENDMENTS

Additional improvements were made under the Amended Regulations to simplify regulatory requirements and provide better clarity and flexibility:

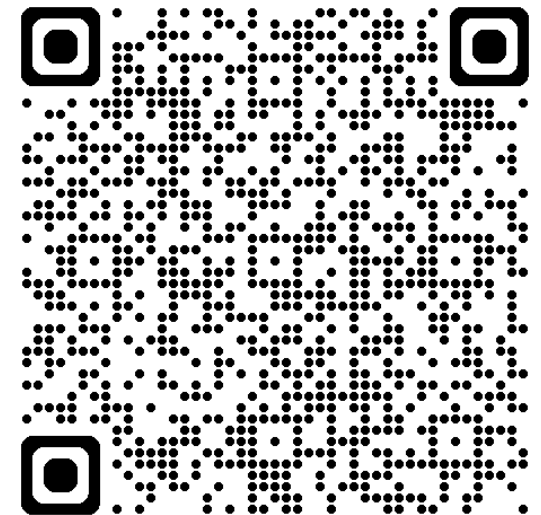
- New definitions: composite sample, licensed professional, authorized representative etc.
- Suspended solids exemption – any four months between May and November (declared in monitoring report)
- Frequency of calibration of monitoring equipment based on recommendation of a manufacturer or licensed professional
- Allowing sampling in lagoons and sampling before effluent is discharged
- Acute lethality testing required once per discharge (instead of every quarter) for large intermittent systems
- Setting clear requirements on when to notify of an unauthorized release under the Regulations
- Clarification of total residual chlorine requirements if chlorine is used in the treatment of wastewater – including addition of a maximum grab sample concentration

# MORE INFORMATION ON AMENDED REGULATIONS

- ECCC's wastewater [webpage](#) has information on amendments and all fact sheets have been updated
- [Registry of authorizations](#) (updated quarterly)
- Regulatory data is published annually – currently available to 2023
- ECCC will be doing targeted outreach to communities that may be eligible for a TA to provide additional information
- Questions about amendments? Please contact [eu-ww@ec.gc.ca](mailto:eu-ww@ec.gc.ca)



*Fact sheets*



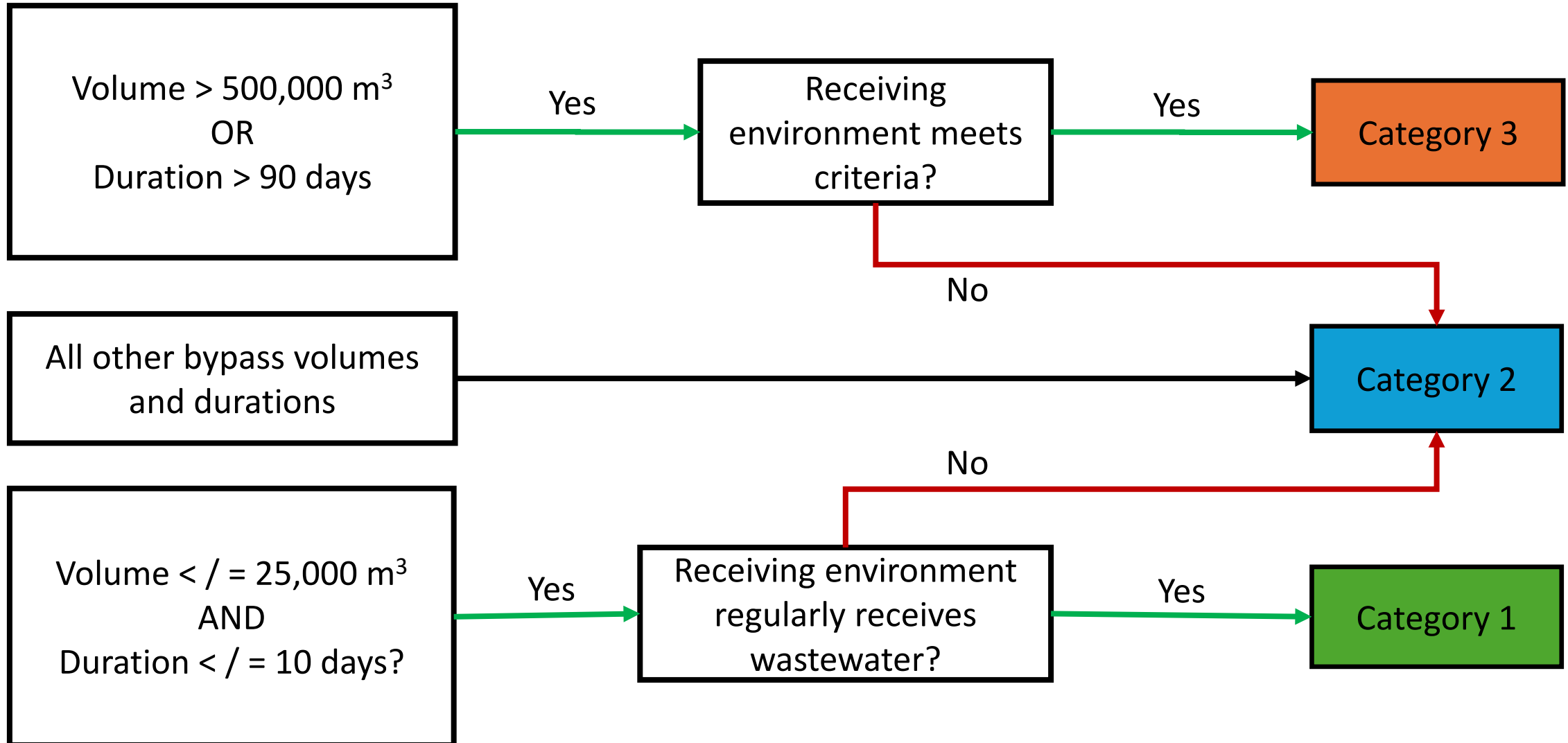
*Regulatory data*

**QUESTIONS?**

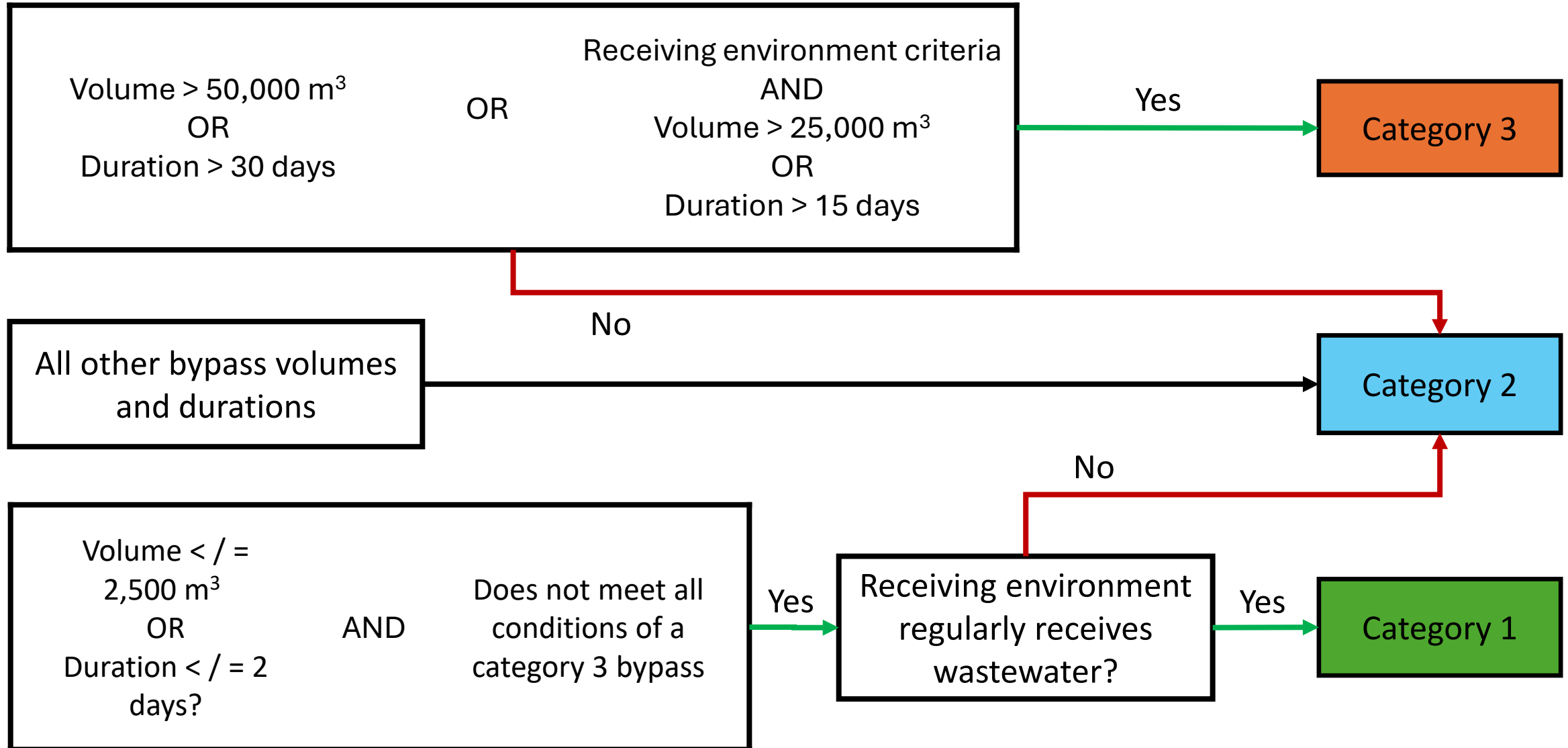
# **ADDITIONAL INFORMATION ON TEMPORARY BYPASS AUTHORIZATIONS**



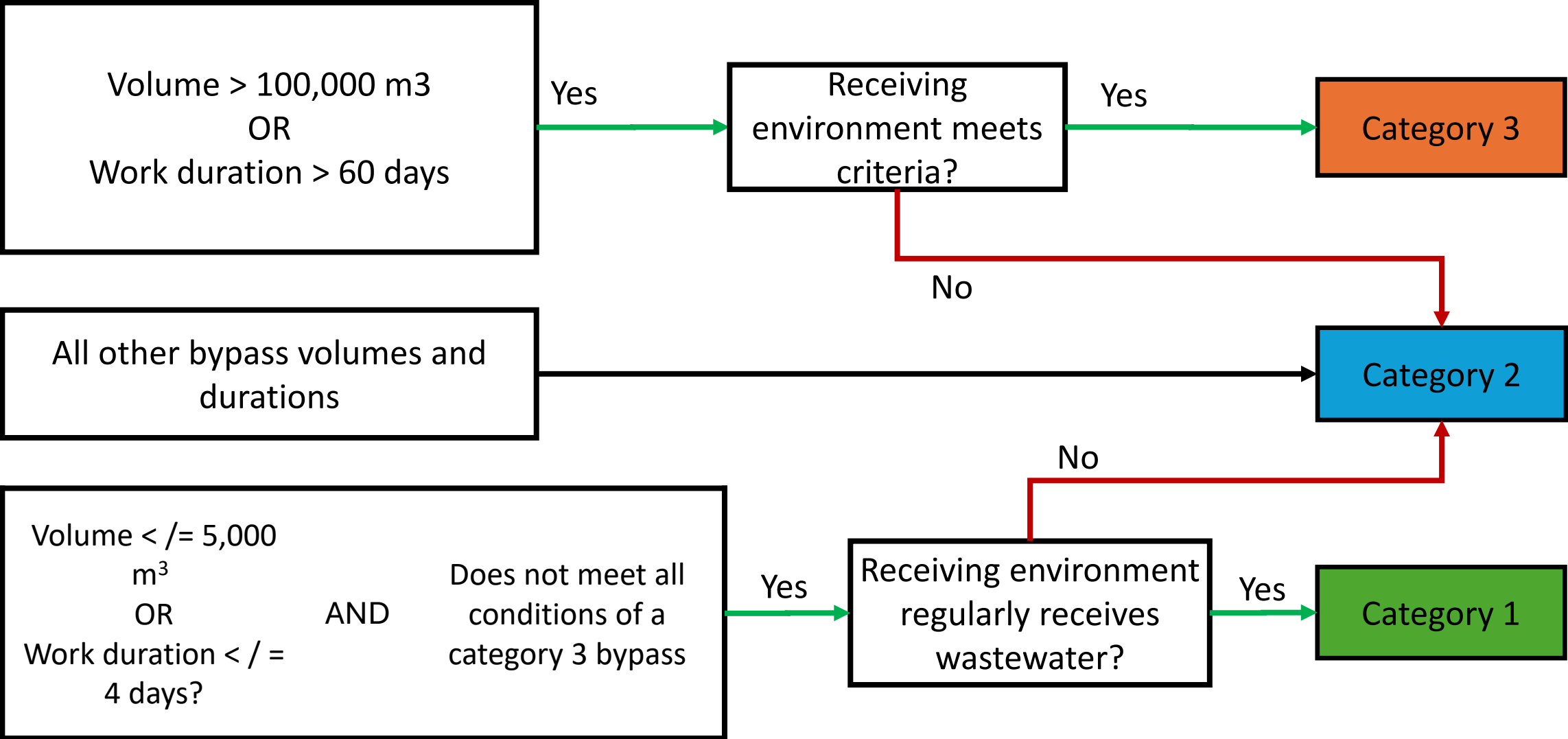
# WASTEWATER EFFLUENT RECEIVES PHYSICAL OR BIOLOGICAL TREATMENT



# WASTEWATER EFFLUENT RECEIVES NO TREATMENT



# WASTEWATER EFFLUENT RELEASE IS DUE TO PRECIPITATION EVENTS DURING A PERIOD OF REDUCED TREATMENT CAPACITY



# RECEIVING ENVIRONMENT CRITERIA

	Receiving Environment	Criteria
1	Shellfish Harvesting Area	<p>A shellfish harvesting area is within 1,500 meters of the bypass location</p> <p><a href="#"><u>Shellfish Harvesting Area Classification in Canada</u></a></p>
2	Critical Habitat	<p>An identified critical habitat for a federal protected aquatic species is within 500 meters of the bypass location</p> <p><a href="#"><u>Critical Habitat in Canada: Critical Habitat of Species at Risk Map</u></a></p>