



**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Water Resources - Groundwater Discharge Program**

235 Promenade Street, Providence, RI 02908-5767

Telephone: 401-222-6820, TCC Device for the Deaf: 401-831-5508, FAX: 401-222-6177

APPLICATION FOR A GROUNDWATER DISCHARGE SYSTEM APPROVAL

Fee: \$1000.00 (\$250.00 for Temporary Approval)

Attach a non-refundable check payable to "General Treasurer, State of RI" and reference the Groundwater Discharge Rules.

<i>FOR RIDEM USE ONLY</i>	
<i>Facility ID #</i>	<i>Date Received</i>
<i>Amount Paid:</i> _____	
<i>Check No.:</i> _____	
<i>Application No.</i>	

IS THIS APPLICATION FOR TEMPORARY GROUNDWATER DISCHARGE OF NO MORE THAN 180 DAYS? Yes No

FACILITY NAME AND LOCATION:

(Facility Name)

(Facility Street Address)

(City/Town)

(Zip Code)

(Facility Owner)

(Mailing Address)

(City/Town)

(State)

(Zip Code)

APPLICANT: Owner Operator

(Name, if Operator)

(Company/Organization)

(Area Code & Telephone Number)

(Mailing Address)

(City/Town)

(State)

(Zip Code)

CONTACT TO ANSWER QUESTIONS REGARDING APPLICATION (If Different than Owner or Applicant):

(Name)

(Company/Organization)

(Area Code & Telephone Number)

(Mailing Address)

(City/Town)

(State)

(Zip Code)

By signing this form, I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate and complete.

(Owner's Signature)

(Date)

Describe the nature of the business and activities conducted that require a groundwater discharge approval:

List name(s) of all RIDEM program(s)/contact(s) involved with the site and associated application/approval number(s):

GROUNDWATER DISCHARGE SYSTEM STATUS:

Proposed Under Construction Operating Conversion of Motor Vehicle Well to a Car Wash Well

FACILITY LOCATION DATA:

Assessor's Plat Number _____ Assessor's Lot Number _____

Latitude and Longitude of Proposed Discharge System to the Nearest Second: LAT _____ LONG _____

TYPE OF GROUNDWATER DISCHARGE:

- Aquifer Remediation (complete Attachment 2)* Aquifer Recharge
- Cooling Water Return Flow Car Wash without Undercarriage or Engine Cleaning
- Industrial Process Wastewater Other (Specify) _____
- Experimental Technology for pilot test/new technology/tracer dye studies, etc. (complete Attachment 1)*

* proposed project associated with a clean-up under RIDEM Office of Waste Management is waived from submitting this application

METHOD OF GROUNDWATER DISCHARGE:

Basin Drywell Galley Injection Well Overland Flow Other (Specify) _____

FLOOR DRAINS:

Are/were floor drains present at the facility? No Yes. If Yes, indicate quantity and use: _____

Where do the floor drains terminate? _____

Have all floor drains been plugged? No Yes If Yes, approximate date(s) they were plugged: _____

POTABLE WATER SUPPLY:

- Private Well: _____ Dug Well _____ Drilled Well (Specify bedrock or sand and gravel) _____
- Municipal Water Supply: (Specify provider) _____
- Other (Specify) _____

If process water supply is different than potable water supply, indicate source _____

WASTEWATER TREATMENT METHOD

Is facility connected to a public sanitary system? No Yes. If Yes, Specify Provider: _____

Are liquids (other than sanitary waste and the discharge proposed in this application) discharged from the facility?
 Yes No. If Yes, identify the source, discharge system type and approximate amount discharged (gal/day):

STORMWATER MANAGEMENT

Are there any stormwater discharge systems present on the property? Yes No If Yes, identify the number and type(s) of systems:

SETBACKS & SEPARATIONS: (Specify all setback & separation distances from the proposed groundwater discharge system, where applicable)

Receptor	Minimum Setback in Feet	Actual Distance
Public Water Well (Sand & Gravel)	400	
Public Water Well (Bedrock)	200	
Surface Drinking Water Supply Impoundment	200	
All Other Surface Waters	100	
Private Drinking Water Well	100	
OWTS (Onsite Wastewater Treatment System)	25	
Other groundwater discharge systems	25	
Property Lines	10	
Building Footings	10	
Water table (does not apply to aquifer remediation injection wells and tracer test wells)	3 feet of vertical separation from bottom of an infiltration area to the seasonal high groundwater table*	

* as determined by a RIDEM licensed Class IV soil evaluator or a RI Registered P.E. in accordance with Rule 10.2.1 of the Groundwater Discharge Rules

An explanation must be provided for each requirement not met (use a separate sheet as necessary): _____

MONITORING PLAN: Provide on a separate sheet, a plan for characterization of the groundwater discharge at the site and the ambient groundwater quality, including the following information: (P.E. initials are required in the space provided indicating that each item has been submitted)

_____ A list of proposed sampling parameters for monitoring of the proposed groundwater discharge and ambient groundwater quality and the analytical methods to be used

_____ A schedule indicating sampling frequency for monitoring of the proposed discharge (include a schematic indicating the location of the groundwater discharge sampling point)

_____ A list and location of existing and proposed groundwater monitoring wells to be used (include a minimum of 3 groundwater monitoring wells: no less than one well located hydraulically up-gradient of the groundwater discharge system and no less than two wells located hydraulically down-gradient of the groundwater discharge system, or as otherwise required in accordance with the Groundwater Discharge System Approval)

_____ A schedule indicating sampling frequency for the 3 groundwater monitoring wells

OPERATION AND MAINTENANCE PLAN: (P.E. initials are required in the space provided indicating that each item has been submitted). Provide on a separate sheet, a plan for operation and maintenance of the groundwater discharge system, including the following:

- _____ The name, address and daytime telephone number of the owner, operator or other representative responsible for maintenance
- _____ A schedule that ensures that the groundwater discharge system, including all treatment and infiltration systems, devices, structures and monitoring equipment are maintained in good operating order at all times as necessary to maintain optimal design performance
- _____ A schedule for the disposal of all material to be removed from the groundwater discharge system, indicating the frequency and method of disposal and subsequent submittal of manifests, bills of lading and/or disposal receipts
- _____ A schedule for annual notification to RIDEM of any groundwater discharge system repair, operational problems and spill or release of fluid that may have entered the groundwater discharge system during the previous 12-month period, including any subsequently reported corrective action
- _____ A description of the immediate response activities and notifications to be performed in the event of a spill or release to the groundwater discharge system

CLOSURE PLAN: (P.E. initials are required in the spaces provided indicating that each item has been submitted)

- _____ Provide a plan for closure of the proposed groundwater discharge system, in the event of termination of the groundwater discharge, detailing the on-site activities and procedures that will be performed to complete closure of the system (e.g. excavation, sampling, etc.).

MAPS AND PLANS (P.E. initials are required in the spaces provided indicating that each item has been submitted). Attach a scaled map for the entire property on which the groundwater discharge is proposed, including the following items:

- _____ A locus map with a north arrow
- _____ A site plan to scale, showing the groundwater discharge system(s) location, the location and identification number of each of the groundwater monitoring wells referenced in the Monitoring Plan, a plan view of the discharge system(s) including all drains and drain lines, property boundary lines, a north arrow, the location(s) of test pits and/or groundwater monitoring wells used to determine the seasonal high groundwater table elevation(s) and any conspicuous features of the site and surrounding area (e.g. buildings, abutting streets, underground utilities, irrigation wells, surface water bodies and wetlands, etc.) and other subsurface discharge systems, including cesspools and Onsite Wastewater Treatment Systems (OWTS)
- _____ A plan showing cross-sectional details of discharge system components with all critical dimensions, elevations and all surrounding fill materials, including crushed filter-stone
- _____ The location of all drinking water supply wells within a 1/4 mile radius of the groundwater discharge system
- _____ All floor drains and their termination points
- _____ Attach a narrative description of any existing groundwater discharge system including installation date, type and amount of waste currently or previously discharged, file number(s) and any problems encountered during system use
- _____ Attach design calculations (for all proposed systems)
- _____ Attach MSDS for all materials stored or used at the facility and an explanation of how they are used
- _____ Attach analytical data of existing waste stream(s) or list expected contaminants in the proposed waste stream(s). Testing parameters must relate to on-site processes and proposed or existing discharge(s) (questions related to testing parameters should be addressed to RIDEM prior to sampling)

CERTIFICATION OF R.I. REGISTERED PROFESSIONAL ENGINEER (P.E.):

The engineering designs, plans and specifications included in this application were all done by me or by someone working directly for me. By signing this form, I certify under penalty of law that the project described in this application and the associated materials meet all of the above requirements. I have personally reviewed these designs, plans and specifications and attachments and certify that they are all done according to the highest standards of professional engineering and that all information presented in this application and the accompanying materials is true, accurate and complete.

(Name) _____ (License Number) _____

(Mailing Address) _____ (City/Town) _____ (State) _____ (Zip Code) _____

(Business Name) _____ (Area Code & Telephone Number) _____

(Signature) _____ (Date) _____

Return Completed Form to: **RIDEM/Office of Water Resources**
 Groundwater Discharge Program
 235 Promenade Street
 Providence, RI 02908

ATTACHMENT 1

FOR APPROVAL OF EXPERIMENTAL TECHNOLOGY TRACER TESTS, INCLUDE THE FOLLOWING INFORMATION (P. E. initials are required in the spaces provided indicating that each item has been submitted):

- _____ The name of any tracer(s) to be used and the associated MSDS
- _____ A site plan indicating the location of the all proposed tracer injection points, groundwater flow direction, the location of all groundwater monitoring wells (labeled) and any sensitive receptors within 400 feet of the injection points (e.g. drinking water wells, surface water bodies, etc.)
- _____ A narrative description of the proposed tracer test, including number of tracers to be used, the purpose and goals for the tracer test and whether or not the injection will be gravity feed or under pressure
- _____ The amount (volume) and concentration of tracer(s) to be injected per injection point, number of injection points, number of injection events and the total amount of tracer(s) to be injected at the site
- _____ A proposed plan for groundwater quality monitoring, including groundwater wells to be monitored, groundwater sampling methods and parameters and frequency and duration of monitoring
- _____ The depth of screen intervals for the injection wells and groundwater monitoring wells (provide well logs)
- _____ The groundwater flow velocity at the site
- _____ The fate of tracer(s): use a simple calculation to determine the water volume within the zone of testing, and provide the estimated concentration expected at the monitoring location(s) based on the dilution
- _____ The expected life span of the tracer(s) in the environment
- _____ Any other information as may be necessary to determine compliance with the RIDEM Groundwater Discharge Rules

ATTACHMENT 2

FOR AQUIFER REMEDIATION WELLS, INCLUDE THE FOLLOWING (P.E. initials are required in the space provided indicating that each item has been submitted):

- _____ A site plan indicating the location of all injection point(s) and the associated area of influence and groundwater wells that will be used to monitor the groundwater in and around the injection area. The site plan must also include the location of any subsurface utilities, groundwater flow direction, drinking water supply wells and sensitive receptors within 400 feet of the proposed injection area
- _____ A brief description of the site history, including the site usage presently and historically, the origin of the contaminants and any previous remedial action(s)
- _____ A list of any sensitive receptors located within 400 feet of the proposed injection area
- _____ The name of any material(s), including water, as applicable, to be injected at the site and the life expectancy of the material(s) after completion of injection
- _____ The MSDS(s) for all material(s) to be injected
- _____ The amount (volume) and concentration (chemical oxidant %) of material(s) to be injected per injection point, the number of injection points, the number of injection events and the total amount of material(s) to be injected at the site
- _____ Information on whether injection will be gravity feed or under pressure
- _____ The groundwater flow velocity at the site
- _____ The expected radius of influence of each injection point
- _____ The depth of screen intervals for the injection wells and groundwater monitoring wells (provide well logs)
- _____ Attach a brief description of the rationale for selecting the proposed injectant(s), an explanation of how the proposed injectant volume(s) and concentration(s) was determined and provide all associated calculations
- _____ A monitoring plan that, at minimum, includes a list of the groundwater monitoring wells to be characterized, the sampling parameters for field monitoring and laboratory analysis and the frequency and duration of the groundwater monitoring
- _____ Any historical groundwater and soil laboratory analytical results for the area being remediated through the proposed injection
- _____ Describe the reactions between the injectant(s) and the contaminants present including specific breakdown products or intermediate products that may be formed by the injection
- _____ "Case Studies" where the proposed technology has been previously utilized
- _____ A "Contingency Plan" that will be followed in the event of surface breakout(s), spills, fires and/or other hazards that may occur during or as a result of injection activities
- _____ Any other information as may be necessary to determine compliance with the RIDEM Groundwater Discharge Rules