**Please use the following instructions as a checklist in order to ensure all required items are submitted. Adherence to these instructions and checking the provided boxes will help produce a quicker review time and reduce the amount of additional information requested. Failure to submit all of the required items will lead to additional processing and review time for the permit application.**

##### *For more information, visit the Water Quality Permitting Section’s Non-Discharge Permitting Unit* [*website*](http://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/non-discharge-permitting)

**General** – This application is for projects involving the construction of reclaimed water distribution lines that will supply reclaimed water for conjunctive use activities. **Unless otherwise noted, the Applicant shall submit one original and two copies of the application and supporting documentation.**

Do not submit this application without an associated Reclaimed Water Project Information (FORM: RWPI) form.

1. **Reclaimed Water Distribution Lines (FORM: RWDL 06-16) Application** (All application packages):

Submit the completed and appropriately executed Reclaimed Water Distribution Lines (FORM: RWDL 06-16) form. Please do not make any unauthorized content changes to this form. If necessary for clarity or due to space restrictions, attachments to the application may be made, as long as the attachments are numbered to correspond to the section and item to which they refer.

The system name in Item II.1. shall be consistent with the user name on the plans, specifications, agreements, etc.

The Professional Engineer’s Certification on Page 5 of this form shall be signed, sealed and dated by a [North Carolina licensed Professional Engineer](https://www.membersbase.com/ncbels-vs/public/searchdb.asp).

The Applicant’s Certification on Page 5 of this form shall be signed in accordance with [15A NCAC 02T .0106(b)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20t/15a%20ncac%2002t%20.0106.pdf). The application must be signed by a principal executive officer of at least the level of vice-president or his authorized representative **for a corporation**; by a general partner **for a partnership or limited partnership;** by the proprietor **for a sole proprietorship**; and by either an executive officer, an elected official in the highest level of elected office, or other authorized employee **for a municipal, state, or other public entity**. An alternate person may be designated as the signing official if a delegation letter is provided from a person who meets the criteria in [15A NCAC 02T .0106(b)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20t/15a%20ncac%2002t%20.0106.pdf).

1. **Property Ownership Documentation** (All Application Packages):

Per [15A NCAC 02U .0201(e)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0201.pdf) or [15A NCAC 02U .0202(f)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0202.pdf), the Applicant shall demonstrate that they are the owner of the property where the reclaimed water lines will be installed. Documentation shall consist of one of the following (or a combination of):

Legal documentation of ownership (i.e., [GIS](http://www.lib.ncsu.edu/gis/counties.html), deed or article of incorporation), or

Written notarized intent to purchase agreement signed by both parties with a plat or survey map, or

An easement specifically indicating the intended use of the property and meeting the requirements of [15A NCAC 02L .0107(f)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20l/15a%20ncac%2002l%20.0107.pdf), (i.e. municipality right of way) or

A written notarized lease agreement signed by both parties, indicating the intended use of the property, as well as a plat or survey map.

1. **Engineering** **Plans** (All Application Packages):

Per [15A NCAC 02U .0201(c)(1)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0201.pdf) or [.0202(c)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0202.pdf), submit standard size and 11 x 17-inch plan sets that have been signed, sealed and dated by a [North Carolina licensed Professional Engineer](https://www.membersbase.com/ncbels-vs/public/searchdb.asp). At a minimum, the engineering plans shall include the following items:

Table of contents.

A general location map with at least two geographic references and a vicinity map.

Plan and profile views of all pump stations and reclaimed water line extensions as well as the proximity of the reclaimed water line extensions to other utilities and natural features.

Depict minimum separation distances required by [15A NCAC 02U .0403(h), (i)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0403.pdf), and [15A NCAC 02T .0305](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20t/15a%20ncac%2002t%20.0305.pdf)).

Minimum cover in accordance with [15A NCAC 02T .0305(g)(4)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20t/15a%20ncac%2002t%20.0305.pdf).

Location and details of all pump stations.

All labeling and color coding requirements per [15A NCAC 02U .0403](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0403.pdf).

Plans shall represent a completed design and not be labeled with preliminary phrases (e.g., FOR REVIEW ONLY, NOT FOR CONSTRUCTION, etc.) that indicate they are anything other than final specifications. However, the plans may be labeled with the phrase: FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION.

1. **Specifications** (All Application Packages):

Per [15A NCAC 02U .0201(c)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0201.pdf) or [.0202(c)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0202.pdf), submit specifications that have been signed, sealed and dated by a [North Carolina licensed Professional Engineer](https://www.membersbase.com/ncbels-vs/public/searchdb.asp). At a minimum, the specifications shall include the following items:

Specifications for standard equipment may be omitted for municipalities with approved standard specifications. Use of standard specifications must be noted on each page of the plans.

Table of contents with each section/page numbered.

Detailed specifications for each reclaimed water line and pump station (as applicable).

Site Work (i.e., earthwork, clearing, grubbing, excavation, trenching, backfilling, compacting, fencing, seeding, etc.)

Materials (i.e., concrete, masonry, steel, painting, method of construction, etc.)

Electrical (i.e., control panels)

All labeling and color coding requirements per [15A NCAC 02U .0403](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0403.pdf).

Specifications shall represent a completed design and not be labeled with preliminary phrases (e.g., FOR REVIEW ONLY, NOT FOR CONSTRUCTION, etc.) that indicate they are anything other than final specifications. However, the specifications may be labeled with the phrase: FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION.

1. **Engineering Calculations** (All Application Packages):

Per [15A NCAC 02U .0201(c)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0201.pdf) or [.0202(c)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0202.pdf), submit calculations that have been signed, sealed and dated by a [North Carolina licensed Professional Engineer](https://www.membersbase.com/ncbels-vs/public/searchdb.asp). At a minimum, the calculations shall include the following items:

Provide justification for the required pipe capacity, and details for how pipe sizes were determined.

Minimum velocities to be maintained in the reclaimed water line.

Friction/total dynamic head calculations and system curve analysis for each pump used.

Pump selection information including pump curves, manufacturer’s information, and recommended installation guidelines.

Detailed specifications for each reclaimed water line and pump station (as applicable).

Floatation calculations for any pump stations entirely or partially below grade.

For connection to a pump station, submit an evaluation of the existing pump station’s ability to handle peak flows. Provide calculations to detail how peak flows were determined.

For connection to a force main, submit an evaluation of the existing force main based on peak flows to the proposed project and peak flows already tributary to the existing force main.

**ONE ORIGINAL AND TWO COPIES OF THE COMPLETED APPLICATION AND SUPPORTING DOCUMENTATION SHALL BE SUBMITTED TO:**

**NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY**

###### DIVISION OF WATER RESOURCES

**WATER QUALITY PERMITTING SECTION**

**NON-DISCHARGE PERMITTING UNIT**

|  |  |
| --- | --- |
| By U.S. Postal Service: | By Courier/Special Delivery: |
| 1617 Mail Service Center | [512 N. SALISBURY STREET](http://maps.google.com/maps?q=512+N.+Salisbury+Street,+Raleigh,+North+Carolina+27604&hl=en&ll=35.787584,-78.638785&spn=0.008146,0.013711&sll=37.0625,-95.677068&sspn=32.610437,56.162109&vpsrc=6&hnear=512+N+Salisbury+St,+Raleigh,+North+Carolina+27603&t=m&z=1) |
| RALEIGH, NORTH CAROLINA 27699-1617 | RALEIGH, NORTH CAROLINA 27604 |
|  |  |
| TELEPHONE NUMBER: (919) 807-6464 | FAX NUMBER: (919) 807-6496 |

**State of North Carolina**

**Department of Environmental Quality**

**Division of Water Resources**

# 15A NCAC 02U – RECLAIMED WATER SYSTEMS – DISTRIBUTION LINES

FORM: rWDL 06-16

1. **CONTACT INFORMATION**:
2. Applicant's name:

Mailing address:

City:       State:       Zip:      -

Telephone number: (   )    -     Email Address:

1. Signature authority’s name:       ([per 15A NCAC 02T .0106](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20t/15a%20ncac%2002t%20.0106.pdf)) Title:
2. Consulting Engineer’s name:       License Number:       Firm:

Mailing address:

City:       State:       Zip:      -

Telephone number: (   )    -     Email Address:

1. **DISTRIBUTION SYSTEM INFORMATION**
2. Distribution system project name (name of subdivision, shopping center, etc.):
3. Project county:
4. USGS map name:
5. Owner of reclaimed water generating facility:
6. Permit number of reclaimed water generating facility: WQ
7. List the owner(s) of any intermediate reclaimed water lines if different from the applicant, or the generating facility.
8. Permit number for reclaimed water line immediately upstream:
9. Pipe diameter for for reclaimed water line immediately upstream:
10. Specify the proposed destination of the reclaimed water:
11. Capacity of proposed distribution system:       gallons per day
12. Explanation of how capacity was determined:
13. **DISTRIBUTION LINE DESIGN INFORMATION**
14. Complete the table below for by providing the required information on the proposed distribution lines:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Diameter (inches)** | **Length**  **(linear feet)** | **Pipe Material** | **High Elevation (ft)** | **Discharge Elevation (ft)** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

1. Station location of air release valves:

Note: Air release valves must be provided at all high points along the line where the elevation difference exceeds 10 ft.

**III. DISTRIBUTION LINE DESIGN INFORMATION (Continued)**

1. Complete the table below by providing the location of each design criteria in the specification and/or plans in accordance with [15A NCAC 02U .0403](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0403.pdf). Items that are not applicable shall be marked N/A.

|  |  |  |
| --- | --- | --- |
| **Design Criteria** | **Page Number in Plans** | **Page Number in Specifications** |
| Labeling on reclaimed water piping, valves, storage facilities, and outlets |  |  |
| Color coding on reclaimed water piping, valves, etc. |  |  |
| Method of securing valves and outlet for operation by authorized personnel only |  |  |
| Locking mechanism for hose bibs |  |  |
| Cross connection control devices |  |  |

1. **SETBACKS (**[**15A NCAC 02U .0701**](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0701.pdf)**)**
2. Provide the actual minimum distance (in feet) from any reclaimed water storage units and/or pump station within the distribution system to each item listed (distances greater than 500 feet may be marked N/A):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Setback Parameter** | Pump stations within distribution system | | Reclaimed Water Storage Units | |
|  | Required | Actual | Required | Actual |
| Any private or public water supply source | **N/A** |  | **100** |  |
| Any property line | **N/A** |  | **50** |  |
| Any well with exception of monitoring wells | **100** |  | **100** |  |
| Surface waters (streams – intermittent and perennial, perennial waterbodies, and wetlands) classified as SA | **100** |  | **50** |  |
| Surface waters (streams – intermittent and perennial, perennial waterbodies, and wetlands) classified as SA | **25** |  | **50** |  |

1. Do the pump stations and storage units comply with all setbacks found in the river basin rules ([15A NCAC 2B .0200](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20b/subchapter%20b%20rules.pdf))?

Yes or  No

* If no, list non-compliant setbacks:

1. Are any setback waivers required in order to comply with [15A NCAC 02U .0701](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0701.pdf)?  Yes or  No

* If yes, have these waivers been written, notarized, signed by all parties involved and recorded with the County Register of Deeds?  Yes or  No
* If yes, have the required Non-Discharge Wastewater System Waiver ([FORM: NDWSW](https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/Aquifer%20Protection/LAU/Agreements/NDWSW%2011-13.pdf)) forms been included with this application package?  Yes or  No

1. **SEPARATION DISTANCES**
2. Provide the actual minimum separation distance (in feet) from the reclaimed water distribution system to each item listed in accordance with [15A NCAC 02U .0403(h), (i), and (j)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0403.pdf):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Separation Parameter** | Horizontal | | Vertical | |
|  | Required | Actual | Required | Actual |
| Any water line (feet) | **10** |  | **1.5** |  |
| Any well | **50** |  | **N/A** |  |
| Sewer lines (reclaimed over sewer) | **2** |  | **1.5** |  |
| Final earth grade | **N/A** |  | **3** |  |

1. Are the separation requirements listed above met?  Yes or  No

* If No, has documentation been provided to show that piping and integrity testing procedures meet water main standards in accordance with [15A NCAC 18C](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2018%20-%20environmental%20health/subchapter%20c/subchapter%20c%20rules.pdf)?  Yes or  No

Note: In no case shall reclaimed water lines be closer than 25 feet to a private well.

**VI. PUMP STATION INFORMATION**

IF MORE THAN ONE PUMP STATION, PROVIDE ADDITIONAL COPIES OF THIS PAGE AS NECESSARY.

1. Are there any reclaimed water pump stations proposed as part of the distribution system?  Yes or  No

* **If no, then skip the remaining items in Section VI.**

1. Complete the table below by providing the required information regarding the reclaimed water pump station(s)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Pump Station Design** |  | | | **Plan Sheet Number** | **Specification Page Number** |
| Internal dimensions (L x W x H or φ x H) | ft | ft | ft |  |  |
| Volume | gallons | | |  |  |
| Inlet Elevation | ft | | |  |  |
| Outlet Elevation | ft | | |  |  |
| Number of pumps |  | | |  |  |
| Pump capacity | GPM | | |  |  |
| Lead pump on elevation | ft | | |  |  |
| Lag pump on elevation | ft | | |  |  |
| Lead pump off elevation | ft | | |  |  |
| Lag pump off elevation | ft | | |  |  |
| High water elevation | ft | | |  |  |
| Audible/Visual high water alarm |  | | |  |  |

1. What is the 100-year flood elevation?       (ft)
2. Precautions to be taken to protect the pump station from flooding:       (ft)

**VII. STORAGE TANK INFORMATION**

IF MORE THAN ONE STORAGE TANK, PROVIDE ADDITIONAL COPIES OF THIS PAGE AS NECESSARY.

1. Are there any reclaimed water storage tanks proposed as part of the distribution system?  Yes or  No

* **If no, then skip the remaining items in Section VII.**

1. Complete the table below by providing the required information regarding the reclaimed water storage tank(s)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Storage Tank Design** |  | | | **Plan Sheet Number** | **Specification Page Number** |
| Type of storage tank |  | | |  |  |
| Internal dimensions (L x W x H or φ x H) | ft | ft | ft |  |  |
| Storage Volume | gallons | | |  |  |
| Inlet Elevation | ft | | |  |  |
| Outlet Elevation | ft | | |  |  |
| High water elevation | ft | | |  |  |
| Audible/Visual high water alarm |  | | |  |  |

1. What measures will be taken to reduce the risk of overflow?

**Professional Engineer's Certification:**

I, , attest that this application for

has been reviewed by me and is accurate, complete and consistent with the information supplied in the engineering plans, calculations, and all other supporting documentation to the best of my knowledge. I further attest that to the best of my knowledge the proposed design has been prepared in accordance with this application package and its instructions as well as all applicable regulations and statutes. Although other professionals may have developed certain portions of this submittal package, inclusion of these materials under my signature and seal signifies that I have reviewed this material and have judged it to be consistent with the proposed design. **Note**: In accordance with NC General Statutes 143-215.6A and 143-215.6B, any person who knowingly makes any false statement, representation, or certification in any application package shall be guilty of a Class 2 misdemeanor, which may include a fine not to exceed $10,000 as well as civil penalties up to $25,000 per violation.

North Carolina Professional Engineer's seal, signature, and date:

**Applicant's Certification (signing authority must be in compliance with** [**15A NCAC 02T .0106**](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20t/15a%20ncac%2002t%20.0106.pdf)**):**

I,

(signing authority name – PLEASE PRINT) (title)

attest that this application for

(facility name)

has been reviewed by me and is accurate and complete to the best of my knowledge. I understand that any discharge of wastewater from this non-discharge system to surface waters or the land will result in an immediate enforcement action that may include civil penalties, injunctive relief, and/or criminal prosecution. I will make no claim against the Division of Water Resources should a condition of this permit be violated. I also understand that if all required parts of this application package are not completed and that if all required supporting information and attachments are not included, this application package will be returned to me as incomplete. I further certify that the applicant or any affiliate has not been convicted of an environmental crime, has not abandoned a wastewater facility without proper closure, does not have an outstanding civil penalty where all appeals have been exhausted or abandoned, are compliant with any active compliance schedule, and do not have any overdue annual fees under Rule [15A NCAC 02U .0105](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0105.pdf). **Note**: In accordance with NC General Statutes 143-215.6A and 143-215.6B, any person who knowingly makes any false statement, representation, or certification in any application package shall be guilty of a Class 2 misdemeanor, which may include a fine not to exceed $10,000 as well as civil penalties up to $25,000 per violation.

Signature: Date: