**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 requested additional information. 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 conjunctive use of reclaimed water. Conjunctive use means that the proposed utilization option is not required to meet the wastewater disposal needs of the facility, and that other permitted utilization/disposal alternatives are also available. **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. Note that distribution of reclaimed water in a bulk manner requires submittal of FORM: RWBD. Use of reclaimed water for the purposes of wetlands augmentation requires submittal of FORM: RWWA.

1. **Conjunctive Use of Reclaimed Water (FORM: RWCU 06-16) Application** (All application packages):

[ ]  Submit the completed and appropriately executed Conjunctive Use of Reclaimed Water (FORM: RWCU 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 user 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 7 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 7 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).

[ ]  If this project is for a renewal without modification, use the [Non-Discharge System Renewal (FORM: NDSR)](https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/Aquifer%20Protection/LAU/NDSR%2006-16.docx) application.

1. **Property Ownership Documentation** (All Application Packages involving new or expanding uses of reclaimed water):

[ ]  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), the Applicant shall demonstrate they are the owner of all reclaimed water utilization sites. Property ownership documentation shall consist of one of the following:

[ ]  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 running with the land 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), 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. **Agronomist Evaluation** (All Application Packages that include new irrigation sites or new crops for existing irrigation sites):

[ ]  Per [15A NCAC 02U .0201(h)](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), submit an agronomist evaluation that has been signed, sealed and dated by a qualified professional and includes at a minimum:

[ ]  Recommendations concerning the cover crop’s ability to accept the proposed application rates of reclaimed water.

[ ]  Recommendations concerning the cover crop’s ability to accept the proposed nutrient loading rates in the reclaimed water.

[ ]  Seasonal irrigation restrictions, if appropriate.

1. **Soil Evaluation** (All Application Packages that include new irrigation sites):

[ ]  Per [15A NCAC 02U .0201(b)](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), submit a soil evaluation of the utilization area(s) that has been signed, sealed and dated by a [North Carolina Licensed Soil Scientist](http://ncblss.org/lss-directory.pdf) and includes at a minimum:

[ ]  The report shall identify all the sites/fields with project name, location, and include a statement that the sites/fields were recommended for the proposed land application activity.

[ ]  Soil evaluation recommendations shall include at a minimum:

[ ]  Maximum irrigation precipitation rate (in/hr) for each soil/map unit within the proposed irrigation areas.

[ ]  Seasonal irrigation restrictions, if appropriate.

[ ]  All projects involving irrigation to food chain crops shall submit a standard soil fertility analysis conducted no more than one year prior to permit application for the following parameters ([15A NCAC 02U .1401](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.1401.pdf)):

|  |  |  |
| --- | --- | --- |
| * Acidity
 | * Exchangeable sodium percentage (by calculation)
 | * Phosphorus
 |
| * Base saturation (by calculation)
 | * Magnesium
 | * Potassium
 |
| * Calcium
 | * Manganese
 | * Sodium
 |
| * Cation exchange capacity
 | * Percent humic matter
 | * Zinc
 |
| * Copper
 | * pH
 |  |

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), 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 with each sheet numbered.

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

[ ]  Plan and profile views of all onsite storage units including inlet and outlet (if applicable) structures.

[ ]  Location and details of all proposed distribution mains.

[ ]  All irrigation areas and/or other utilization areas, showing the extent of reclaimed water application.

[ ]  For irrigation of food chain crops, plans shall clearly show the method of irrigation (i.e. direct or indirect).

[ ]  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), 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:

[ ] [ ]  Table of contents with each section/page numbered.

[ ] [ ]  Detailed specifications for the proposed reclaimed water utilization system, including all piping, valves, pumps, flow meters, high water alarms, cross connection controls, etc. For irrigation systems, include details for spray heads and/or drip emitters.

[ ] [ ]  Details for any onsite storage units, including dimensions, storage volume, liner requirements, etc.

[ ] [ ]  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, transfer switches, automatically activated standby power source, etc.)

[ ] [ ]  Means for ensuring quality and integrity of the finished product, including leakage, pressure and liner testing.

[ ] [ ]  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), submit engineering 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 engineering calculations shall include the following items:

[ ] [ ]  Total and effective storage calculations for each storage unit.

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

[ ] [ ]  Manufacturer’s information for all pumps, flow meters, spray heads/emitters, etc.

[ ] [ ]  Flotation calculations any storage units constructed partially or entirely below grade.

[ ] [ ]  For irrigation systems, demonstrate that the irrigation rate will not exceed the Soil Scientist’s recommendations.

[ ] [ ]  Demonstrate how estimated reclaimed water usage was determined.

1. **Site Map** (All Application Packages):

[ ] [ ]  Per [15A NCAC 02U .0201(d)](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), submit standard size and 11 x 17-inch site maps that have been signed, sealed and dated by a [North Carolina licensed Professional Engineer and/or Professional Land Surveyor](https://www.membersbase.com/ncbels-vs/public/searchdb.asp). For clarity, multiple site maps of the facility with cut sheet annotations may be submitted. The site map shall include the following items at a minimum:

[ ] [ ]  A scaled map of the site with topography showing all facility-related structures and fences within the reclaimed water utilization areas.

[ ] [ ]  The location of features in [15A NCAC 02U .0701(a) and (b)](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), to the extent needed to determine compliance with setbacks.

1. **Food Crop Irrigation Landowner Agreement** (Projects involving irrigation of food chain crops where the irrigation site is not owned by the supplier of the reclaimed water).

[ ] [ ]  Provide a notarized agreement between the reclaimed water user and the reclaimed water generator that includes the following items at a minimum:

[ ] [ ]  A description of the approved uses and conditions for use of the reclaimed water consistent with [15A NCAC 02U .1401](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.1401.pdf).

[ ] [ ]  A condition requiring the reclaimed water supplier to provide the landowner with the results of sampling performed to document compliance with reclaimed water effluent standards.

[ ] [ ]  A condition requiring the landowner to report to the reclaimed water supplier any use of the reclaimed water inconsistent with this agreement.

**ONE ORIGINAL AND ONE COPY 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 – CONJUNCTIVE UTILIZATION

FORM: rWCU 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 2T .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. Consulting Soil Scientist’s name:       License Number:       Firm:

 Mailing address:

City:       State:       Zip:      -

Telephone number: (   )    -     Email Address:

1. Consulting Agronomist’s name:       Firm:

 Mailing address:

City:       State:       Zip:      -

Telephone number: (   )    -     Email Address:

1. **USER INFORMATION**
2. Reclaimed water user name(s):

User facility physical address:

City:       State:       Zip:      -     County:

1. Facility status: [ ]
2. What is the proposed beneficial use(s) of the reclaimed water in accordance with [15A NCAC 02U .0101(a)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0101.pdf)?

(Check all that apply)

[ ]  Irrigation (non food crop) [ ] [ ]  Irrigation (food chain crops) [ ] [ ]  Industrial process water make up

[ ] [ ]  Cooling towers [ ] [ ]  Chiller/Boiler makeup [ ] [ ]  Urinal/Toilet flushing (non-residential)

[ ] [ ]  Fire protection (non-residential)

[ ] [ ]  Other (specify):

1. Estimated amount of reclaimed water to be used:       gallons per day
2. Does the reclaimed water source facility already have a permit for generation of reclaimed water? [ ] [ ]  Yes or [ ] [ ]  No
* If Yes, list permit number:
* If No, then the Reclaimed Water Generation application (FORM: RWG) must also be included in this package.
1. In accordance with [15A NCAC 02U .0501(a)(2) and (b)(2)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0501.pdf), how will the public and/or employees be notified about the use of reclaimed water?
2. Specify the location within the application package where examples of notification materials can be found:
3. **UTILIZATION AREA 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)**)**
4. Provide the actual minimum distance in feet from the storage units and utilization areas to each item listed (distances greater than 500 feet may be marked N/A):

|  |  |  |
| --- | --- | --- |
| **Setback Parameter** | Utilization Areas | Final Effluent Storage Units |
| Required | Actual | Required | Actual |
| Any private or public water supply source |  |  | **100** |       |
| Any property line |  |  | **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) not classified as SA | **25** |       | **50** |       |

1. Do the utilization areas 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, has a Non-Discharge Wastewater System Waiver ([FORM: NDWSW](https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/Aquifer%20Protection/LAU/Agreements/NDWSW%2011-13.pdf)) been included with this application package? [ ] [ ]  Yes or [ ] [ ]  No
1. **DESIGN CRITERIA FOR DISTRIBUTION SYSTEMS (**[**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)**)**
2. Fill in the table below to indicate the location in the plans and specifications where the following items can be located:

|  |  |  |
| --- | --- | --- |
| **Distribution System Design Element** | **Plan Sheet Number** | **Specification Page Number** |
| Labeling of valves, storage facilities, and outlets to warn the public or employees that reclaimed water is not intended for drinking in accordance with [15A NCAC 02U .0403(b)](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) |       |       |
| Identification of piping, valves, and outlets as reclaimed water (i.e., color coding purple, labeling, taping, etc.) in accordance with [15A NCAC 02U .0403(c)](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) a |       |       |
| Method of securing valves and outlets the permits operation by authorized personnel only in accordance with [15A NCAC 02U .0403(d)](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) |       |       |
| Hose bibs locked for use by authorized personnel only in accordance with [15A NCAC 02U .0403(e)](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) |       |       |

a. Identification of existing underground distributions systems shall be incorporated within 10 feet of crossing any water line or sanitary sewer line.

1. Will potable water be used to supplement the reclaimed water system? [ ] [ ]  Yes or [ ] [ ]  No
* If yes, what cross connection control measures will be taken in accordance with [15A NCAC 02U .0403(f)](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)?

Plan Sheet Number       Specification Page Number

* If yes, is documentation that the proposed cross-connection control measures have been approved by the Division of Environmental Health’s Public Water Supply Section included in this application package? [ ] [ ]  Yes or [ ] [ ]  No
1. Has each utilization area been equipped with a flow meter to accurately determine the volume of reclaimed water utilized? [ ] [ ]  Yes or [ ] [ ]  No
2. **DESIGN INFORMATION FOR EARTHEN STORAGE IMPOUNDMENTS:** [**15A NCAC 02U .0401**](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0401.pdf)

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

1. Are there any earthen reclaimed water operational storage impoundments located at the utilization site(s)? [ ] [ ]  Yes or [ ] [ ]  No
* **If no, then skip this Section V.**
1. Storage Impoundment Coordinates (Decimal Degrees): Latitude:   .     ○ Longitude: -  .     ○
2. Do any impoundments include a discharge point (pipe, spillway, etc)? [ ] [ ] [ ]  Yes or [ ] [ ]  No
* If Yes, has the required NPDES permit been obtained to authorize the discharge of reclaimed water? [ ] [ ]  Yes or [ ] [ ]  No
* Provide the NPDES permit number      ; or the date when NPDES application was submitted:
1. Are subsurface drains present beneath or around the impoundment to control groundwater elevation? [ ] [ ]  Yes or [ ] [ ]  No
2. Is the impoundment designed to receive surface runoff? [ ] [ ] [ ]  Yes or [ ] [ ]  No

If yes, what is the drainage area?       ft2

1. Is a liner provided with a hydraulic conductivity no greater than 1 X 10 -6 cm/s? [ ] [ ]  Yes or [ ] [ ]  No
* If No, has the Applicant provided data to show that the reclaimed water source is protective of the groundwater standard for nitrates (10 mg/l)? [ ] [ ]  Yes or [ ] [ ]  No
1. What is the depth to bedrock from the earthen impoundment bottom elevation?       ft
* If the depth to bedrock is less than four feet, has the Applicant provided a liner with a hydraulic conductivity no greater than 1 x 10-7 cm/s? [ ] [ ]  Yes, [ ] [ ]  No or [ ]  N/A

Has the Applicant provided predictive calculations or modeling demonstrating that surface water or groundwater standards will not be contravened? [ ] [ ]  Yes or [ ] [ ]  No

* If the earthen impoundment is excavated into bedrock, has the Applicant provided predictive calculations or modeling demonstrating that surface water or groundwater standards will not be contravened? [ ] [ ]  Yes, [ ] [ ]  No or [ ] [ ]  N/A
1. If the earthen impoundment is lined and the mean seasonal high water table is higher than the impoundment bottom elevation, how will the liner be protected (e.g., bubbling, groundwater infiltration, etc.)?
2. If applicable, provide the specification page references for the liner installation and testing requirements:
3. If the earthen impoundment is located within the 100-year flood plain, has a minimum of two feet of protection (i.e., top of embankment elevation to 100-year flood plain elevation) been provided? [ ] [ ]  Yes or [ ] [ ]  No

|  |  |
| --- | --- |
| **Earthen Impoundment Design Elements** | **Earthen Impoundment Dimensions** |
| Liner type: | [ ]  Clay | [ ]  Synthetic | Top of embankment elevation: |       ft |
| [ ]  Other | [ ]  Unlined |
| Liner hydraulic conductivity: |       cm/s | Freeboard elevation: |       ft |
| Hazard class: |  | Toe of slope elevation:  |       ft |
| Designed freeboard: |       ft | Impoundment bottom elevation:  |       ft |
| Total volume: |       ft3 |       gallons | Mean seasonal high water table depth:  |       ft |
| Effective volume: |       ft3 |       gallons | Embankment slope: |       :       |
| Effective storage time: |       days | Top of dam water surface area: |       ft2 |
| Plan Sheet Reference: |       | Freeboard elevation water surface area: |       ft2 |
| Specification Section: |       | Bottom of impoundment surface area: |       ft2 |

1. Provide the requested earthen impoundment design elements and dimensions:
2. **DESIGN INFORMATION FOR CONJUNCTIVE USE IRRIGATION SYSTEMS**
3. Will reclaimed water be used for irrigation? [ ] [ ]  Yes or [ ] [ ]  No
* **If no, then skip this Section.**
1. The irrigation system is: [ ] [ ]  existing [ ] [ ]  proposed
2. The irrigation system is: [ ]
3. Does the irrigation area contain any subsurface drainage structures? [ ] [ ]  Yes or [ ] [ ]  No
* If yes, where does the drainage system discharge?
1. Provide the equipment information below for spray and/or drip systems:

|  |  |  |  |
| --- | --- | --- | --- |
| **Spray Utilization Design Element** |  | **Plan Sheet Number** | **Specification Page Number** |
| Wetted area of nozzles |       ft2 |       |       |
| Nozzle capacity |       gpm |       |       |
| Nozzle manufacturer / model |       /       |       |       |

|  |  |  |  |
| --- | --- | --- | --- |
| **Drip Utilization Design Element** |  | **Plan Sheet Number** | **Specification Page Number** |
| Wetted area of emitters |       ft2 |       |       |
| Emitter capacity |       gpm |       |       |
| Emitter manufacturer / model |       /       |       |       |

1. If applicable, provide the location of each design element in the specifications and engineering plans for irrigation dosing systems:

|  |  |  |  |
| --- | --- | --- | --- |
| **Utilization Pump Tank** |  | **Plan Sheet Number** | **Specification Page Number** |
| Internal dimensions (L x W x H or φ x H) |       ft |       ft |       ft |       |       |
| Total volume |       ft3 |       gallons |       |       |
| Dosing volume |       ft3 |       gallons |       |       |
| Audible & visual alarms |  |       |       |
| Equipment to prevent utilization during rain events |  |       |       |

1. DESIGN INFORMATION FOR CONJUNCTIVE USE IRRIGATION SYSTEMS (Continued)
2. Provide the following information for each irrigation site:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Site ID | Latitude a | Longitude a | Area (ft2) | Recommended Precipiation Rate b(in/hr) | Design Precipitation Rate b(in/hr) | Crop Type | WaterbodyStream Index No. c | Classification c |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |       |       |       |

a. Level of accuracy? Method of measurement?  Datum?

b. For seasonal loading rates, list appropriate months.

c. Instructions for determining the waterbody stream index number and its associated classification can be found at the following web address:

<https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/Aquifer%20Protection/LAU/Agreements/WSCA%2008-13.pdf>

1. INFORMATION FOR OTHER CONJUNCTIVE UTILIZATION AREAS (other than irrigation)
2. Will reclaimed water be utilized for purposes other than irrigation? [ ] [ ]  Yes or [ ] [ ]  No If No, skip this Section.
3. Provide the following information for all other reclaimed water utilization sites (non-irrigation):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Site ID | Latitude a | Longitude a | Allowable Use | Waterbody/Stream Index No. b | Classification b |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |
|       |   ○  ′  ″ | -  ○  ′  ″ |       |       |       |

a. Level of accuracy? Method of measurement? Datum?

b. Instructions for determining the waterbody stream index number and its associated classification can be found at the following web address: <https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/Aquifer%20Protection/LAU/Agreements/WSCA%2008-13.pdf>

1. **IRRIGATION OF FOOD CHAIN CROPS**
2. Will the system be used to irrigate food chain crops? [ ] [ ]  Yes or [ ] [ ]  No
3. If **Yes**, please complete the flowchart below by checking the appropriate yes/no responses. **If No, skip this Section.**

Will the portion of the crop intended for human consumption be peeled, skinned, cooked, or thermally processed prior to human consumption?

 [ ] [ ]  Yes [ ] [ ]  No

Will the irrigation activity result in the direct contact of reclaimed water on the portion of the crop intended for human consumption (direct contact irrigation)?

Type 1 reclaimed water is allowed pursuant to ([15A NCAC 02U .0301(b)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0301.pdf)), for direct or indirect contact irrigation.

 [ ] [ ]  Yes [ ] [ ]  No

This activity is not allowed without further study pursuant to [15A NCAC 02U .1401(a)(5)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.1401.pdf).

Type 2 reclaimed water is allowed pursuant to

[15A NCAC 02U .0301(a)](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.0301.pdf), for indirect contact irrigation.

1. For food crop irrigation sites not owned by the reclaimed water supplier, has a Landowner Agreement been included in the application package as outlined in Instruction I? [ ] [ ]  Yes or [ ] [ ]  No or [ ]  N/A
2. What type of notification will be provided at the irrigation site(s) to inform the public about the use of reclaimed water in accordance with [15A NCAC 02U .1401](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20u/15a%20ncac%2002u%20.1401.pdf)?

**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 02T .0105](http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20t/15a%20ncac%2002t%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: