

West Carteret Water Corporation Developer's Guide - Checklist Section

Revised: July 2019

The below table and subsequent checklist is provided to engineers and developers for the purpose of assisting with water line plan development for West Carteret Water Corporation. Governed by the NC Department of Environment and Natural Resources, WCWC strictly follows the requirements of the Public Water Section (PWS). Being a member-owned, nonprofit utility, WCWC does not financially participate in the initial development of private property, but is mindful of the expense required on the developer's part. As such, it is our hope that the checklist will streamline the process to reduce engineering, administrative, and construction costs and/or corrections.

While completing the checklist, refer to the detailed instruction sheets for information to assist with the completion of the items along with additional construction information. This checklist is amended as necessary to include changes or requirements by Public Water Supply or construction standards. When beginning a project, verify that you are utilizing the most recent release of this document. Note that large projects that intend to activate water lines in sections should apply for a PWS serial number for each section or phase. Once water lines are installed, PWS would prefer to not issue more than one partial certification.

Questions can be directed to the General Manager, Lisa Smith-Perri, at (252) 393-1515 Ext. 20 or lisa.smithperri@wcwc.biz.

General Information Table

Project Name	General Location	Tentative Completion Date	File Open Date
Water Demand	PWS Serial Number	PWS Authorization Date	PWS Expiration Date
Potable: Irrigation: Total:			
Number of Taps	Type of Project		
	<input checked="" type="checkbox"/> Subdivision <input type="checkbox"/> Condos <input type="checkbox"/> Campground <input type="checkbox"/> Institutional <input type="checkbox"/> Business [Shopping Complex, etc.] <input type="checkbox"/> Other:		
Check all that apply to this project (in portion or in whole)			
<input checked="" type="checkbox"/> 100-Year Floodplain <input type="checkbox"/> Wetlands <input type="checkbox"/> New Turning or Acceleration Lane <input type="checkbox"/> Forced Sewer Mains <input type="checkbox"/> Sidewalks <input type="checkbox"/> Irrigation (within Right-of-Way)			

Please complete the above table as fully as possible and attach with Item No. 1A of the checklist. Information above may not become available until the project plans develop.

Developer's/Engineer's/Contractor's Checklist

Ref. No.	Item to be completed or received by developer or agent:	No. of Copies	Completion Date
1	Request most current copy of Developer's Guide Checklist		
1A	Send Letter of Intent to WCWC Board of Directors along with Site Plan and information table	1	
1B	Review most current Floodplain Developer's Guide and forward requested information, if applicable		
2	Received correspondence from WCWC to proceed with project		
3	Initial Review - Submit Preliminary Plan Review Package: <ul style="list-style-type: none"> • Approval letter from town/county department • NCDENR PWS Application (To be kept on file and returned with item number 7 below) • Sealed Engineering Report • Project Blueprints with detailed drawings including sewer lines • Technical Specifications (Technical Specs) 	1	
3A	Received Preliminary Plan Review Comments from WCWC, if applicable		
3B	Resubmit Plan Review Package with completed items from 3A.		
4	Second Review - The purpose of this review is to verify that all changes have been made on the plan documents in accordance with comments from item 3 above. There is no administrative charge for reviews unless plans are not amended correctly. If additional comments are made by WCWC, please see item number 5. If no additional comments are made, developer should skip to step 7 below.		
5	Resubmit PWS package to WCWC including comments from item number 3.	1	
6	Received approval letter from WCWC for package submitted along with PWS signed application		
7	Submit final package to Public Water Supply as instructed by WCWC in guide and forward a copy of package to WCWC	3	
8	Submit completed 3-Party DOT Encroachment forms for WCWC to sign: <ul style="list-style-type: none"> • 6 Encroachment request forms • 1 Original blueprint 	6	
8A	Submit turning lane plan, if applicable, to WCWC along with Item 8.		
8B	Received signed or copy of signed DOT encroachment agreements from water company		

8C	Submit DOT encroachment agreements to NCDOT <ul style="list-style-type: none"> • 5 Encroachment request forms • Water line specifications • 5 Original blueprints 	5	
8D	Send copy of DOT transmittal/cover letter to WCWC	1	
9	Received PWS comments or request for changes; Copy to WCWC (if applicable)		
9A	Resubmit requested information to PWS, if applicable; Copy to WCWC		
9B	Received final plan approval from NC DENR Public Water Supply along with Authorization to Construct.		
10	Received approved NC DOT Encroachment		
11	Received Notice to Proceed with Construction Phase of Checklist by WCWC.		
12	Schedule preconstruction meeting by contacting the General Manger at: lisa.smithperri@wcwc.biz or (252) 393-1515 Ext. 20.		
12A	WCWC invited the following to attend: <ul style="list-style-type: none"> • WCWC Representatives • Project Engineer • Developer • Contractor 		
12B	Attend preconstruction meeting		
12C	Provide licensed contractor Information along with workers compensation and general liability insurance certificate	1	
12D	Provide water tap materials list to WCWC for ordering, if applicable	1	
13	Provide construction schedule and estimated inspection hours	1	
13A	Inspection Fee deposit paid by developer or contractor (responsible party to be determined by developer at preconstruction meeting)		
14	Final copy of construction drawings or amendment forwarded to WCWC or authorizing agent	2	
14A	Received sign-off from WCWC on changes, if applicable		
14B	Received sign-off from other agencies regarding changes, if applicable		

14C	FORWARD FINAL/REVISED SET OF CONSTRUCTION DRAWINGS TO WCWC AND CONTRACTOR, IF APPLICABLE	2 Copies each	
15	Notify WCWC of actual begin date; Inspection services must be scheduled a minimum of 48 hours in advance.		
15A	Schedule inspection of all materials		
16	Remind contractor to keep water lines located during and following installation to prevent damage from probing (depth and distance off EOP/curbing); Prior to pressure test if probing		
17	Schedule pressure testing with Project Engineer & WCWC Representative (If probing to locate water lines as noted in 16, pressure testing must take place after probing is completed)		
17A	Verify pressure testing results WCWC Representative and/or engineer representative		
18	Complete disinfection (chlorination) per specifications		
18A	Schedule bacteriological testing (test #1)		
18B	Schedule repeat bacteriological testing, if applicable due to failed test (This may actually be repeated several times)		
18C	Receive final bacteriological testing results		
18D	Verify that WCWC has copy of bacteriological testing results		
18E	Received testing verification form for bacteriological and pressure testing from WCWC		
19	Verify that water lines remain located/flagged by contractor (as noted in item 16)		
19A	Complete GPS coordinates of all water mains, valves, hydrants, and meters (if applicable) to WCWC; Transfer information to drawings		
20	Schedule preliminary inspection (as requested by contractor or engineer), providing the information from 19 and 19A on 20A.		
20A	Send drafted as-built drawing provided for inspection by WCWC that includes construction changes, water line depth, GPS coordinates, and distance off EOP	2	

20B	Received inspection comments or approval from WCWC (If no comments, go to Item 20E)	1	
20C	Schedule reinspection, if applicable		
20D	Received WCWC comments or approval from 20C, if applicable		
20E	Received final inspection approved by WCWC		
21	Final Plan Processing - Sign plan for Carteret County Planning Department		
21A	Final Plan Processing – Plat recorded by Developer/Owner		
22	Forward engineering certification to WCWC for NC DENR PWS, noting major changes	1	
23	Received copy of WCWC approval provided to NC DENR PWS	1	
24	Forward easement information to WCWC attorney	1	
25A	Verify easement/conveyance has been signed by Developer and recorded by WCWC attorney		
26	Provide cost statement from Developer to WCWC	1	
27	Provide written one year warranty from contractor and developer that states it will be effective from the date of the first tap application		
28	Provide FINAL water & sewer as-built drawings, including street names, lot numbers and 911 Addresses (3 blueprints, 1 mylar)	As noted	
28A	CAD file on CD to WCWC		
29	Request FINAL encroachment site inspection and approval from NC DOT; Provide copy of as-built drawing (if applicable)		
30	FINAL inspection received from NC DOT		
31	FINAL approval received from NC DENR PWS along with authorization to provide service		
32	Letter of Acceptance by WCWC-Water available for consumption		

Notes:

CHECKLIST INSTRUCTION SHEET

PRECONSTRUCTION PHASE

Ref. No. 1+ **New developments will not be included in WCWC's system until every item on the attached checklist have been completed unless a particular item does not apply to your project.**

A **Letter of Intent** should be addressed to WCWC Board of Directions and provided to the General Manager. Along with the letter, include the **information table** located on the coversheet of the checklist and a **plan sheet (layout)**. Smaller extensions can be approved immediately by the General Manager. Larger extensions must be reviewed by the board before a Notice to Proceed is provided. In either case, the board will formally adopt each project. They generally meet the third Tuesday of each month.

As a minimum, the letter should contain the following: Developer's and engineer's names, mailing and email addresses, contact phone numbers; Preferred primary contact (developer or engineer); Development/Project name, location, number of lots, tentative schedule, and water demand requirement.

If known, please include information about mandatory irrigation for homeowners, irrigation expected to be in the right-of-way, sewer mains in the right-of-way, sidewalks, turning or acceleration lanes that may be required by NC DOT. The latter will help us to provide you with additional information you may need during the development of your plans. **NOTE: THE STATE REQUIRES A SEPARATE WATER SERVICE FOR IRRIGATION SYSTEMS.**

If the project is within the 100-year floodplain that must be outlined on the plan and you may have to comply with the Floodplain guidance document.

Ref. No. 3+ Using Public Water Supply's and WCWC's guidelines, the project engineer should prepare a draft package of required information. Forms, included in the complete Developers' Guide, can also be obtained by contacting Public Water Supply or visiting their website at www.deh.enr.state.nc.us/pws/. The initial package should include one copy the following:

▶ **Letter of Approval from town or county department:**

▶ **Carteret County**

Physical Address: 402 Broad St, Beaufort, NC 28516
Mailing Address: 402 Broad St, Beaufort, NC 28516
Phone Numbers: (252) 728-8545
Fax Number: (252) 732-2065
Contact: Gregory Hartman, CC Planning & Development
Email: gregg.hartman@carteretcountync.gov

▶ **Town of Cedar Point**

Physical Address: 427 Sherwood Avenue, Cedar Point, NC 28584
Mailing Address: P O Box 1687, Cedar Point, NC 28584
Phone Numbers: (252) 393-7898 or (252) 393-2753
Primary Contact: Chris Seaberg, Town Administrator
Email: cdseaberg@cedarpointnc.org
Secondary Contact: Jane Calhun, Town Clerk
Email: jcalhun@cedarpointnc.org

▶ **Town of Cape Carteret**

Physical Address: 102 Dolphin St, Cape Carteret, NC 28584
Mailing Address: 102 Dolphin St, Cape Carteret, NC 28584
Phone Numbers: (252) 393-8483
Fax Number: (252) 393-6799
Contact: Zach Steffey, Planning/Zoning/Inspector
Email: zsteffey@capecarteret.org

▶ **Town of Bogue**

Physical Address: 121 Chimney Branch Rd, Newport, NC 28570
Mailing Address: 121 Chimney Branch Rd, Newport, NC 28570
Phone Numbers: (252) 393-3055
Fax Number: (252) 764.0845
Primary Contact: Elizabeth Sweeney, Town Clerk
Email: boguetown@bizec.rr.com

▶ **Town of Peletier**

Physical Address: 1603 Hwy 58, Peletier, NC 28584
Mailing Address: 1603 Hwy 58, Peletier, NC 28584
Phone Numbers: (252) 393-8666
Fax Number: (252) 393-7027
Primary Contact: Dale Sowers, Mayor
Cellphone: (252) 241-4501
Email: townofpeletier@gmail.com

▶ **Application for Approval:**

▶ **Our water system identification number is 04-16-040.**

▶ Where WCWC is a bulk water provider and the project is to extend lines beyond the bulk meter, indicate that by checking the proper option on the application. The owner of the water lines past the bulk meter will then be the applicant. WCWC will provide a letter to the applicant as requested on the form.

▶ For all applications, you will need to include WCWC's WSMP report information. The report was previously submitted and approved in April 2001. **The WSMP number for WCWC is 01-00665. This page will be signed by WCWC.**

▶ WCWC's engineering report was approved by PWS, but an updated copy that includes the proposed project, must be submitted with each new application (see *Engineering Report* below).

▶ **Engineering Report:** The Engineering Report must include two parts: 1) Information regarding the project being reviewed and 2) Information regarding WCWC. WCWC will update and publish engineering reports periodically that will be available to the engineers in .pdf format. Request and use the most current revision. The developing engineer must seal the finished report once it is completed. A disclaimer from the developing engineer can be added, which notes the portion of information provided by WCWC.

▶ **Project Blueprints:** Project plans should include detailed drawings in addition to the location of any planned turning lanes, sewer mains, 100-year floodplain or wetland information. Typical drawings for specific items, such as a blow-off assembly, fire hydrants, and so forth are available upon request. If you have a specific question, please contact the General Manager. WCWC will be happy to schedule a meeting in advance to answer questions or you may contact the General Manager for clarification at lisa.smithperri@wcwc.biz or (252) 393-1515 Ext. 20.

- ▶ **Technical Specifications (also referred to as Technical Specs, Specifications or Design Manual):** As technical specifications are being developed, you may contact WCWC for a general set if you do not have one. Specific information for WCWC is available to assist you in the development of this document.

For preliminary review, forward only one set of the above package to WCWC. Comments, if applicable, will be returned to the project engineer and you will be required to resubmit the draft once changes have been made. **Depending on the work load, allow several weeks for this review. After returning comments to the engineer, WCWC will review the revised package once it has been provided.**

Ref. No. 4-6 **WCWC will absorb the cost of the initial in-house review or review by their engineering firm.** However, the Developer will be responsible for all charges associated with subsequent reviews IF the project engineer does not make the requested amendments to the resubmitted package. **Once an approved set of plans and specifications has been submitted, go to item 7 on the checklist.**

Ref. No. 7 In completing the final package to Public Water Supply, see the details listed above in No. 3 and submit 3 copies to PWS along with the remittance amount included on the application. **Forward a copy to WCWC along with the transmittal.** The addresses for PWS are:

Mailbox: NC DENR Public Water Supply
1634 Mail Service Center (*or abbreviated "MSC"*)
Raleigh, NC 27699-1634

Physical (UPS/Other): 2728 Capital Blvd., Suite 1B-500
Raleigh, NC 27604

Telephone questions can be directed to the PWS office at (919) 733-2321.

Ref. No. 8+ If encroaching on the North Carolina Department of Transportation (NCDOT) right-of-way, we must apply for permission to tap the water main. This would include all water services 2-inches and greater.

The encroachment package to DOT must include 5 blueprints, water line specifications, and RW166 encroachment forms, which must be signed and sealed by WCWC's General Manager or designated water company representative. **The package will be submitted by the developer or the developing engineer after WCWC has signed the encroachment. Including a copy for the water company, one blueprint plus 6 encroachment forms are needed if you wish to submit original signatures.** (Please note that recently, NCDOT has been accepting 1 original and 4 copies.) Once signed, WCWC will return the encroachments, keeping a file copy and the blueprint.

Requested bonds must be supplied to NC DOT by the developer or contractor.

A copy of the NC DOT Encroachment can be found at the following web address: <http://www.ncdot.org/doh/forms/files/RW166.doc>. WCWC has a template available upon request.

Mailbox: NC Department of Transportation
209 South Glenburnie Road

Turning lanes or acceleration lanes may require that the water main be relocated if there is a conflict. Contact WCWC for more information.

Ref. No. 9 – 9A If comments are made by Public Water Supply, the project engineer will be responsible for making such changes and providing a copy of correspondence to WCWC.

Ref. No. 9B The developer should allow a minimum of 30 days for plan approval by Public Water Supply. Additional revision comments from the division will increase the review time period. WCWC will regularly track the process via the Internet and confirm when the approval (Authorization to Construct) has been issued (see **NOTE** below). Generally, once approved by PWS, a written confirmation follows in about 1 week. Although construction cannot begin until the authorization is received, the engineer may elect to begin working on the Construction Phase items to save time once the Public Water Supply's web site has been updated to reflect an approval.

NOTE: Public Water Supply now issues two letters before construction begins. The first letter will refer only to the plans and specifications. The second letter is generally enclosed with the same package and includes the Authorization to Construct.

Ref. No. 10 The DOT encroachment also takes about 30 days for review. A copy of the approved encroachment agreement and cover letter must be kept on the job site at all times.

Ref. No. 11 Once applicable items in the Preconstruction Phase (1-11) have been completed, the water company will issue an informal Notice to Proceed, generally by e-mail, that will notify the engineer that a preconstruction meeting can be scheduled.

Do not begin construction until the preconstruction meeting has been held.

No supplies should be ordered until the preconstruction meeting has been held unless approved by WCWC in advance. Where material may need to be ordered to save delivery time and then plans are changed due to deviations in the field at the preconstruction meeting, WCWC will not be responsible for restocking fees associated with the change in materials.

Taps made to WCWC's system without proper authorization will be fined and/or may prevent service to the new development.

CONSTRUCTION PHASE

Ref. No. 12+ A preconstruction meeting, on site or at the water company office, will be scheduled by WCWC upon request by the developer, engineer, or contractor. Attendees will include WCWC representatives, project engineer, developer, contractor, and other utilities. At this meeting, the project engineer should be prepared to produce a tentative construction schedule and provide contractor contact information, as well as, the other items listed on the checklist.

The contractor's representative should be someone that will be participating in the actual construction of the project. Contractors hired by developers must hold a current NC General Contracting License- PU Classification (Water Line and Sewer Line Installation). In addition, they must be insured **and** approved to work for WCWC. A copy of their license and insurance must be provided.

WATER SERVICE INSTALLATION DURING CONSTRUCTION:

- **If the developer desires to install services during construction, information should be provided to WCWC during the planning stage, not at the preconstruction meeting. (See guide specific to service installations by developer.)**
- **Depending on the size of the project, WCWC may or may not elect to provide materials for all service installations.**
- **Note that water services in advance are done so for future potable applications and are not to be used for construction purposes.**
- **The main line valve will be shut off until a final approval is received and/or the first application is accepted.**
- **Tampering charges will be billed to those using water from an unauthorized metered or nonmetered source.**

Ref. No. 13+ WCWC will assign an inspector to each project. Inspection is a reimbursable expense. At the preconstruction meeting, it must be determined who will be responsible for that billing, the developer or the contractor. For larger projects, a deposit may be required in advance, but in no case shall water be turned on for any project until all billings are paid in full.

Ref. No. 14+ Periodically, when meeting in the field during a preconstruction meeting, we discover changes that need to be made to the construction drawings. All plans must be revised or an addendum issued by the engineer. The document(s) should be provided to WCWC for approval following the meeting and before construction begins. The documents should be signed by WCWC with copies being returned to the engineering firm and contractor.

It is the engineering firm's responsibility to ensure that the contractor is using the most recent set of prints prior to construction commencing. Drastic changes to either the DOT encroachment plan or water line plans may require permission from those agencies as well.

Ref. No. 15+ CONTRACTOR IS RESPONSIBLE FOR SCHEDULING INSPECTION OF MATERIALS (PRIOR TO BEGINNING) AND WATER LINE INSTALLATION.

All materials must be approved by WCWC prior to installation. Piping should be protected during shipment and while being stored during construction. Please note piping that is sun-damaged, unprotected, or aged in excess of 2 years will not be accepted.

Ref. No. 16 The engineering firm should encourage the contractor to keep all water lines located during construction to save time at the end of the project. The engineering will transfer GPS location, the final depth and back of curb distances to an inspection blueprint, which WCWC will use. See No. 26.

Ref. No. 17– 18E

If locating with a probe, pressure testing will take place after the contractor has finished.

Pressure and bacteriological testing should be coordinated with both the project engineer and WCWC representative. WCWC will transport samples provided by the contractor. The expense is billable to the developer or contractor, as decided in the preconstruction meeting, per transport. Samples are taken on Tuesdays and Thursdays only, unless other arrangements have been made with the General Manager or System Manager.

Once all testing is completed and has passed, WCWC will issue a Testing Verification sheet to the engineer.

POST CONSTRUCTION PHASE

Ref. No. 19–20E

It is the contractor's responsibility to maintain one set of construction drawings on-site at all times, noting the exact location of the water line. The installed water line should be located every 50-feet. A flag should be placed on the center of the pipe to indicate the depth and distance from back of curb or off EOP. Where roadways are not paved, discuss with WCWC. GPS coordinates are requested.

The water line locations should be transferred to the approved construction drawing and forwarded to WCWC for inspection of the water lines. **IT IS THE ENGINEER'S RESPONSIBILITY TO REQUEST AN INSPECTION OR TO COORDINATE WITH THE CONTRACTOR TO REQUEST AN INSPECTION.** All water lines not installed according to plan depth and distance or where water lines are in conflict with sidewalks and/or asphalt, they will be relocated by the developer prior to activating the water lines. The acceptable depth is 36-inches with a variance of 6-inches (30" to 42") below FINAL GRADE. Water lines must be installed 5-feet from asphalt, sidewalks, edge of roadway, etc.

Ref. No. 22-23 WCWC will not provide water to any development until final approval has been received from Public Water Supply. The project engineer must submit the necessary documentation to WCWC; WCWC will forward to PWS with the owner's certification. Where large projects will be placed into service at different phases, each phase should have its own application and serial number because Public Water Supply would rather not issue more than one partial certification.

Ref. No. 24+ Before WCWC can install new meters or take over new water lines, an easement and water line conveyance must be completed. When planning to record the plat, please coordinate this with WCWC's attorney in advance.

Where water lines have not been installed according to plans and/or there are other unusual circumstances, such as the construction of sidewalks, landscaping and so forth, hold harmless agreements are also incorporated into the legal conveyance. (See No. 24.) Such information requires that the developer and/or homeowner's association be responsible for damages to the right-of-way, sidewalks, irrigation and so forth in the event of required maintenance or construction to the water lines. Hold harmless agreements may also be included where it is anticipated that these may be an issue in the future. (See also No. 30.)

The water company's attorney is:

Doug Goines, PA
911 Arendell Street
Morehead City, NC 28557
dgoines@coastalaw.com
(252) 726-2134

Ref. No. 26 Due to auditing requirements, the final project cost must be forwarded in writing by the developer or engineer. The cost should include a breakdown of engineering and water lines.

Ref. No. 27 A written, one-year warranty from the developer and contractor is required that covers the installation, materials, and right-of-way. The latter refers to issues on the right-of-

way as a result of disturbance during and immediately following construction. This would not include wash outs that resulted from hydrant use or blowing off water lines after the Letter of Acceptance is issued by WCWC.

Due to the extended, dormant state of some projects, the warranty effective date will begin on the date of the first tap installation. See item 32.

Ref. No. 28+ Approved changes should be reflected on the final as-built drawings. It is suggested a one copy of the final plans be forwarded to the water company for review prior to submitting all sets. WCWC's inspector will review as-built drawings for accuracy. If changes are required, the project engineer will be promptly notified.

Once approved, three (3) copies of final as-built blueprints, one (1) mylar, as well as, a digital copy of the project on either CD or disk is required. (The digital plans will be incorporated into WCWC's existing master blueprints.)

Ref. No. 29-30 Please provide correspondence from DOT in the form of an email or otherwise to verify that the right-of-way referenced in the encroachment agreement has been restored properly.

Ref. No. 32 Once legal documents are in place, approvals have been received from NC DOT and Public Water Supply, and all other checklist items are received, WCWC will issue a final Letter of Acceptance AFTER the checklist is entirely complete. "Entirely complete" would include the final development of streets, lots, and installation of other utilities.

Until the construction of the project is considered entirely complete, it is the developer's responsibility to coordinate with the contractor to handle requests to locate water lines during the development stage of the project.

The warranty begins once consumers are ready for water as noted in Item 27.

Questions regarding this checklist should be addressed to the General Manager/Executive Director:

**Lisa Smith-Perri
West Carteret Water Corporation
4102 Hwy 24, Newport, NC 28570
(252) 393-1515 Ext 21 or (252) 393-1540 Fax
lisa.smithperri@wcwc.biz**