SITE EVALUATION SHEET
WATER WELL for
LIVESTOCK

COOPERATOR INFORMATION

First Name

Last name

County

Tract - Field

Contract Number

Program

Type of livestock:

- ☐ Beef
- ☐ Poultry
- ☐ Dairy
- ☐ Equine
- ☐ Swine
- ☐ Goat/Sheep
- ☐ Other, specify:

Type of operation:

WELL SITE INFORMATION

Well Site Coordinates (decimal degrees): LAT LONG

Please check each box to acknowledge that the proposed well location meets the following conditions:

- ☐ The well will be located at a higher elevation than any source of contamination
- ☐ The proposed well location is NOT in an area generally flooded or where surface flow of any volume should be expected. (Areas to be avoided include – concave slope, alluvial or colluvial soils, gullies, depressions and drainage ways.)
- ☐ There are no overhead or underground utilities in close proximity to the proposed well location
- ☐ The proposed well location is readily accessible for maintenance and repair
- ☐ Surface runoff from any area used by livestock shall be diverted away from the well head.

WELL SITE INFORMATION

Please check each box to confirm that the proposed well location meets required setback distances from sources of contamination [the greater of NRCS Standard 642 or N.C. State Law]. Note: Some county regulations are more restrictive; you must use the most restrictive rule which applies to your well.

☐	Sanitary landfill	500 Feet
☐	Waste disposal lagoon or holding pond	300 Feet
☐	Pit silo	150 Feet
☐	Septic tank and disposal field	100 Feet
☐	Permanent Livestock feeding area (concrete pads or heavy use areas, etc.)	100 Feet
☐	Livestock barn	100 Feet
☐	Manure pile	100 Feet
☐	Waste irrigation sites	100 Feet
☐	Fertilizer, pesticide or other chemical storage areas	100 Feet
☐	Non-hazardous / Inert debris landfills (stump dumps)	100 Feet
☐	Gravity sewer line or transfer station (non-water tight)	100 Feet
☐	Regulated fuel or chemical storage tanks (without secondary containment)	100 Feet
☐	Agrichemical handling and mixing facility	100 Feet
☐	Regulated fuel or chemical storage tanks (with secondary containment)	50 Feet
☐	Gravity sewer line or transfer station (water tight)	50 Feet
☐	Heating fuel storage tanks – above and below ground	50 Feet
☐	Ponds, lakes, reservoirs	50 Feet
☐	Gravesites	50 Feet
☐	Other possible sources of contamination (livestock watering tank, equipment wash areas, etc.)	50 Feet
☐	Streams, creeks, rivers, etc.	25 Feet
☐	Building foundations	25 Feet

WELL FLOW ESTIMATE

The Well Flow Rate and Total Water Use are an estimation of the potential water demand that will be required from the proposed well to meet the water needs of the specified livestock.

The Well Flow Estimates should be provided to the well driller as an ESTIMATE of the required well flow that will be needed to meet the cooperator's livestock watering needs. If wells in the area do not typically yield the estimated flow, multiple wells or an alternate water source will be required OR the number of animals watered will need to be reduced.

In the example below a livestock watering system capable of providing an adequate water supply for 50 beef cow/calf pairs, running for 24 hours per day, requires a minimum well flow rate of 1 GPM, and will use 1,500 gallons per day.

Animal Type	Number	Water Use[1] (gal/day/head)	Well Flow Rate[2,3] (GPM)	TOTAL Water Use[4] (gal/day)
Beef Cow/Calf pair	*50*	*30*	*1*	*1,500*

1. Value from attached Livestock Watering Parameters table.

2. Well Flow Rate = $\frac{\text{(Number X Water Use)}}{\text{(60 min X 24 hrs/day)}}$

3. The Well Flow Rate calculation is based on the livestock watering system operating 24 hours/day. If the system run time will be different adjust the calculation accordingly.

4. Total Water Use = Number X Water Use

COASTAL PLAIN CAPACITY USE AREA PERMIT

Is the well site located in the Central Coastal Plain Capacity Use Area (CCPCUA)?

CCPCUA counties include: BEAUFORT, CARTERET, CRAVEN, DUPLIN, EDGECOMBE, GREENE, JONES, LENOIR, MARTIN, ONSLOW, PAMLICO, PITT, WASHINGTON, WAYNE and WILSON

☐ YES ☐ NO

→ Wells located in the CCPCUA are subject to the CCPCUA Rules:

- Permits are required for ground water users of more than 100,000 gallons per day.
- Annual registration and reporting of withdrawals is required for surface and ground water users of more than 10,000 gallons per day.
- CCPCUA Website - https://www.ncwater.org/?page=49&menu=Home

LARGE CAPACITY WATER SUPPLY WELL PERMIT

Will the proposed well qualify as a Large Capacity Water Supply Well?

A Large Capacity Water Supply Well is any water supply well or water well system with a design capacity equal to or greater than **100,000 gallons per day**

☐ YES ☐ NO

→ NC DEQ Permits are required to construct any Large Capacity Water supply well

- For more information visit: https://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/ground-water-protection/well-program

REQUIRED DOCUMENTATION

The following documents must be completed and included in the contract folder and/or conservation plan folder. Please check the box to acknowledge that each document has been completed.

☐ Operation and Maintenance Plan - Water Well

☐ Operation and Maintenance Plan - Pumping Plant

☐ GIS Map showing the location of the proposed Water Well. Include the 100 yr. floodplain and any potential sources of contamination

☐ NC NRCS Practice Job Sheet - 642 - Water Well

☐ Well System Details Diagram

☐ NRCS Cultural Resources Review

☐ Local and/or State well permits, if applicable

☐ N/A*

→ * Contact the appropriate local agency and NC DEQ to verify that permits are not required for this well.

TECHNICAL REPRESENTATIVE

Name

Agency

Signature

Date

WELL SITE EVALUATION
LIVESTOCK WATERING PARAMETERS TABLE

The values in this table should only be used to ESTIMATE Well Flow Rate and TOTAL Water Use for a NC CSP water supply well and pump. The Water Use values should not be used to create detailed livestock watering designs. The actual livestock water use may vary based on other parameters.

ANIMAL TYPE	Water Use[1,2,3] (gal/head/day)
Beef cattle	15
Beef cow	20
Beef cow/calf pair	30
Goats	2
Horses	8
Milking cow	35
Milking cow/calf pair	45
Dry cow	15
Sheep and lambs	2
Nursery pigs (up to 60 lbs BW)	0.7
Grower Pigs (60-100 lbs BW)	2 - 3
Finishing Pigs (100-250 lbs BW)	3 - 5
Nonpregnant gilts	3
Pregnant sows	3 - 6
Lactating sows	2.5 - 7
Boars	5
	(gal/1,000 birds/day)
Broilers	70 - 85

1. https://content.ces.ncsu.edu/water-needs-assessment-tool-a-guide-for-technical-specialists
2. https://projects.ncsu.edu/project/swine_extension/healthyhogs/book1995/almond.htm
3. 2013 J. Appl. Poult. Res. 22 :934–941 http://dx.doi.org/ 10.3382/japr.2013-00767