



SC DEPARTMENT of
**ENVIRONMENTAL
SERVICES**

Surface Water Withdrawal Permit Application

A. General Information

1. Facility Name: McCormick CPW Thurmond Lake Intake and Pump Station	
2. Facility Address: N/A	City: McCormick State: SC Zip:
3. Owner Name: McCormick CPW	8. Contact Name: Eddie Brown
4. Owner Address: 912 South Main Street	9. Contact Address: 912 South Main Street
City: McCormick State: SC Zip 29835	City: McCormick State: SC Zip: 29835
5. Owner Telephone Number: (864) 852-2224	10. Contact Telephone Number: (864) 852-2224
6. Owner Fax Number:	11. Contact Fax Number:
7. Owner E-Mail Address: cdaniels@mccormickcpw.com	12. Contact E-Mail Address: ebrown@mccormickcpw.com
13. Name and phone number of Agent completing application: David Tyre	
14. Is this application for a new permit or modification to an existing permit? <input type="checkbox"/> NEW <input checked="" type="checkbox"/> MODIFICATION	

B. System Withdrawal Information

15. Total amount of water, in millions of gallons per month (MGM), from all intakes being requested in this permit: **130 MGM**

16. General discussion regarding the place and nature of the use for the surface water withdrawn (see instructions):
The McCormick CPW has recently approved a new industrial user expected to require 1 MGD of water. In addition, McCormick County has inquired about an exclusive contract for water from the CPW, which is estimated to also be an additional 1 MGD. The US Army Corps of Engineers was contacted and responded with a yield from their most recent hydrologic study showing McCormick CPW with an Estimated Yield of 7.79 cfs, which translates to a withdrawal of 4.19 MGD (attached). The CPW currently has a permitted withdrawal of 88.7 MGM, or 2.86 MGD. The CPW requests an increase to match their US Army Corps of Engineer's estimated dependable yield from Thurmond Reservoir of an additional 41.3 MGM for a total new withdrawal of 130 MGM.

Check here to indicate documentation supporting the above discussion has been attached (see instructions).

17. Will any portion of the water withdrawn be transferred across a basin boundary? YES NO

18. If the answer to 17 above was "yes", please provide the following information (see instructions):

A. The basin in which the withdrawal is located, including the 8-digit USGS hydrologic unit code (HUC):
Basin: _____ **HUC Code:** _____

B. The basin to which any part of the water will be transferred, including the 8-digit USGS hydrologic unit code:
Basin: _____ **HUC Code:** _____

C. The entity to which the water is being transferred:

D. The location to which the water is being transferred:

E. The means by which the water is being transferred:

F. The maximum amount of water, in MGM, that will be transferred across a basin boundary during any single month during the permit period:

G. How much water, in MGM, will be returned to the basin of origin and how much will be permanently lost to the basin of origin?
Water returned to basin of origin: _____ **Water lost to basin of origin:** _____

24. Check here if you have more than 3 intakes to include on this application. If you have more than 3 intakes, please provide the information requested above for each additional intake and attach the information to this application.

D. System Water Return Information

25. Location(s) of water returns and anticipated percent of withdrawn water returned at each location (see instructions):

Return #1 - Name: **Rocky Creek** Lat/Long: **33.917676/-82.269360** % Water Returned: **59%**

Return #2 - Name: **Persimmon Branch** Lat/Long: **33.916032/-82.266733** % Water Returned: **7.5%**

Return #3 - Name: Lat/Long: % Water Returned:

Check here to indicate that location maps have been included with this application for each return (see instructions).

If you have more than 3 return points to include in this application, please provide the information requested above for each additional return on a separate sheet attached to this application.

Please check here if you have more that 3 returns included with this application:

26. Estimated ratio between water withdrawn and consumptive use of water withdrawn: $59\%+7.5\% = 66.5\%$ **Consumptive Use**

Check here to indicate supporting documentation has been attached to this application.

E. Non-Consumptive Use Permits

27. Are you requesting a "non-consumptive" use permit? YES NO

If the answer to 27 above was "yes", please provide the information requested in this section.

- A. Attach tax map indicating property boundaries with intake and discharge points located. Note that if this map is provided the maps requested in B above are not required.
- B. Attach a discussion of the timing of the withdrawal and discharge to establish that the amount not returned to the stream does not exceed 3 million gallons in any one month.
- C. An engineering analysis demonstrating that 90% of the water withdrawn is returned and that the 10% not returned will not exceed 3 million gallons in any one month must be submitted.

Please check here to indicate the above items have been included with this application.

F. Drought Operations and Contingency Plan

28. Check here to indicate that a draft Drought Operation and Contingency Plan has been attached to this application as required by R.61-119 Section E.4.

G. Fees

29. Indicate application fees included with this application:

- | | | |
|-------------------------------------|--|---------|
| <input type="checkbox"/> | Application fee for new surface water permit - | \$7,500 |
| <input checked="" type="checkbox"/> | Application fee for modification to existing permit - | \$2,000 |
| <input type="checkbox"/> | Application fee to modify an existing permit at time of renewal- | \$1,000 |

EXISTING INTAKE LOCATION MAP



Under RFC accounting, it became more difficult to clearly separate DYM from the changes to accounting methodologies. Hart County was the only account requiring additional DYM storage requiring 0.2 AC-FT to maintain the current Hart County yield levels (Figure 11.3-2). The 4 new requests at Hartwell required 19,457 AC-FT of conservation storage to meet the requested annual demand of 23.91 MGD. Results using RFC accounting are summarized in Figure 11.3-3 shows additional storage requirements to fulfill requests.

Contract	Requested Yield at 2072	Requested Yield at 2072	Storage at creation of Contract	Storage at 2024	Scaled Storage for Existing Contracts 2072	A2CDCS Estimated Yield Existing Contracts 2024	Additional Yield Requested 2072	Required Storage (No RFC)	A2FUT1 Modeled Yield Future Contracts 2072	DYM Required	Required Storage (RFC)	A2FUT1D Modeled Yield Future Contracts 2072	DYM Required
	(MGD)	(CFS)	(AC-FT)	(AC-FT)	(AC-FT)	(CFS)	(CFS)	(AC-FT)	(CFS)	(AC-FT)	(AC-FT)	(CFS)	(AC-FT)
HARTWELL													
Anderson (ARJWS)	47.33	73.23	24,620	21,310	18,523	44.59		18,524	42.03	0.55	14,215	42.03	0.00
Anderson NEW			0.0				28.64	13,686	31.20		10,555	31.20	
City of Lavonia	3.20	4.95	127	116	101	0.25		101	0.23	0.00	95	0.23	0.00
Lavonia New			0.0				4.71	2,036	4.72		1,428	4.72	
Hart County			1,827	1,706	1,483	3.57		1,483	3.37	0.00	1,483	3.37	0.20
Pioneer (PRWD)	5.00	7.74	0.0				7.74	3,396	7.74		2,648	7.74	
Currahee Club	0.50	0.77	0.0				0.77	340	0.77		343	0.77	
RUSSELL													
Elberton			381	303	199	13.20		201	12.48	1.43	199	12.48	0.00
Rainey			491	416	274	23.50		275	22.18	1.15	274	22.18	0.00
THURMOND													
Columbia County			1,056	1,032	1,000	10.50		1,004	9.99	3.79	1,000	9.99	0.00
Lincolnton			175	170	165	1.70		165	1.62	0.00	165	1.62	0.00
McCormick			822	806	781	7.79		785	7.68	3.73	781	7.68	0.00
Savannah Valley			92	90	87	0.49		87	0.46	0.00	87	0.46	0.00
Thompson			1,056	1,033	1,001	10.54		1,003	9.97	2.08	1,001	9.97	0.00

Figure 11.3-2: Water Account Comparison with DYM and RFC, A2FUT1D

13 Agent information: Provide the name and phone number (and email if applicable) for any Agent preparing the application for a permittee.

14 Is this application for a new permit or modification to an existing permit?: If this application is for a new, previously un-permitted withdrawal, indicate NEW and proceed with filling out the application. If this application is for the modification of an existing permit, indicate MODIFICATION and proceed with filling out this application. If this application is for an additional volume of water requested during application for an initial permit application as an existing user under 49-4-70(B)(3) of the act, indicate MODIFICATION and proceed with filling out this application.

B. System Withdrawal Information

15 The total amount of water, in millions of gallons per month (MGM), from all intakes being requested in this permit. Specify the total volume of water, in millions of gallons per month for which a permit or increase is being requested for this facility. If a single new intake is being requested in Section C below, provide that value. If multiple new intakes are being requested, provide the total of all intakes. For expansion of an existing permitted facility, provide the current permitted volume for the intake(s) for which an increased volume is being requested plus the additional volume that is being requested. If requesting additional volume for an initial permit under 49-4-70(B)(3), provide the volume being requested on the initial permit and the volume being requested on this form. The permitted withdrawal volume will be intake specific; consequently, any increase to the permitted withdrawal volume for an intake will require a permit modification.

16 General discussion regarding the place and nature of the proposed use of the surface water withdrawn. In the space provided, give a general discussion of where and how the water withdrawn will be used. In a separate attachment, provide specific, detailed information concerning where and how the water will be used. As to location, it is anticipated that an industry will specify the location of the facility and while a municipal water system will specify its designated service area. Specify how the water withdrawn will be used. As to use, it is anticipated that a public water system will provide a breakdown of how much water is used domestically, how much is sold to industrial and commercial users, and how much is sold to other corporate or governmental entities. For an industry, it is anticipated that the applicant will provide a breakdown of how the water will be used within the facility, such as process, contact and non-contact cooling water, sanitary wastewater, etc.

17 Will any portion of the water withdrawn be transferred across a basin boundary?

If No, proceed to Number 19 below. If Yes, continue and answer questions in section 18 below. Section 49-4-90 of the Act requires an enhanced public notice process for withdrawals associated with the transfer of water from one basin to another. Section F.2.d of the implementing regulation describes the 8 USGS-defined basins to be used to determine an interbasin transfer. Maps showing the 8 interbasin transfer basins are provided at <https://des.sc.gov/programs/bureau-water/surface-water-withdrawals/interbasin-transfer-ibt-information> on the Department's web site. Section F.2.d further states that an interbasin transfer is considered the transfer of three million gallons or more of water in any one month from one of the 8 basins to a different basin such that the water is permanently lost from the basin of origin. To allow the Department to determine if the withdrawal will result in an interbasin transfer under the Act and institute the required public notice process, provide the information requested in 18 below.

18 If the answer to 17 above was "yes", please provide the following information.

- A. The basin in which the withdrawal is located, including the 8-digit USGS hydrologic unit code: See maps on Department web site for HUC basin codes.
- B. The basin to which any part of the water will be transferred, including the 8-digit USGS hydrologic unit code: See maps on Department web site for HUC basin codes.
- C. The entity to which the water is being transferred: Indicate the entity, if different from the applicant, who is to receive the water.

or a downloaded portion of a quad sheet or equivalent map is sufficient provided the map is legible and contains sufficient information to allow confirmation of the intake's location.

- Quantity of water requested for this intake millions of gallons per month For a new withdrawal, provide the maximum volume of water for which a withdrawal permit is being requested at this individual intake. For an expansion, provide the volume specified on the existing permit and the requested increase. For existing surface water withdrawers requesting that their initial permit include an additional withdrawal volume, provide the volume being requested based on criteria of 49-4-70(B)(1) or an existing IBT permit on the application for an existing withdrawer and the additional volume being requested under 49-4-70(B)(3) on this application form.

- Provide supporting documentation that justifies the withdrawal quantity requested for this intake. Attach detailed documentation justifying the requested permit quantity such as a detailed engineering analysis documenting anticipated water use in a proposed industrial facility, taking into account any applicable industry standards on the efficient use of water, or a detailed assessment of existing and future needs of a municipal system. The Department will rely, in part, on this information in determining if the proposed use of water is reasonable and justified and if the quantity requested is within the source waterbody's safe yield. If unsure as to how satisfy the requirements of this section, contact SCDES's Bureau of Water for additional assistance.

- Method that will be used to measure the quantity of water withdrawn. Specify which of the 5 methods provided for in the Act, provided below, will be used to measure the quantity of water withdrawn:

- A. Flow meters accurate to within ten percent of calibration;
- B. The rated capacity of the pump in conjunction with the use of an hour meter, electric meter, or log;
- C. The rated capacity of the cooling systems;
- D. Any standard or method employed by the United States Geological Survey in determining these quantities; or,
- E. Any other method found to provide reliable water withdrawal data approved by the Department.

Should an applicant wish to use a method other than those listed here, supporting documentation must be submitted with the application regarding measurement methods and accuracy. Methods other than those listed here shall be approved at the discretion of the Department.

24 Check here if you have more than 3 intakes to include on this application. If you propose to have more than 3 intakes, please provide the information requested above for each additional intake and attach the information to this application.

D. System Water Return Information

25 Location(s) of water returns and anticipated percent of withdrawn water returned at each location: The Department is required to develop water balances when evaluating proposed withdrawals or expansions to determine if the proposed withdrawal amount is within the safe yield of the stream. To do this, the department must know how much water is withdrawn, how much is returned to surface waters and where it is returned. In a simple case with one withdrawal and one discharge point, the percent of water returned would simply be the ratio of the water returned to the water being withdrawn. An anticipated percent returned value is needed because, for the water balance, we will need to estimate return flow at the permitted withdrawal rate, not the actual volume being returned at the time of application. To document the location of the return flows, provide the latitude and longitude of each return (discharge) location and include a map showing the precise return point(s) on a U.S. Geological Survey 1:24,000 scale quadrangle or equivalent. Submittal of an original quad sheet is not required. A copy of the appropriate portion of the quad sheet or a downloaded portion of a quad sheet or equivalent map is sufficient provided the map is legible and contains sufficient information to allow confirmation of the intakes location. Indicate in check-box if information for additional intakes is attached.

26 Estimated ratio between water withdrawn and consumptive use of water withdrawn: The Department needs to know how much of the water withdrawn is returned to the source waterbody or any other waterbody and how much is lost. For a facility proposing to increase its withdrawal, this ratio can be calculated by comparing current

Withdrawers not considered public water suppliers must develop OCPs and implement them anytime the flow at the point of the permitted withdrawal is less than or equal to the minimum instream flow, as defined by the Act, or in accordance with any drought response plan required by the owner of a licensed impoundment that they use as a water source. The plan must specify specific actions, including those listed above, that the withdrawer will take to efficiently use available water resources and minimize the impact of facility operations on the source water body. Some permittees will have to cease consumptive water use when stream flows are below the specified minimum instream flow and, if water is withdrawn, return an equal volume of water to the source waterbody such that there is no net loss of water to the stream due to the facility's operation. Actions that may be taken during periods of cessation of consumptive withdrawals may include, but are not limited to: water conservation; use of supplemental water supplies, such as aquifer storage and retrieval, purchases of raw, potable or waste water, or use of groundwater or off-stream water storage; seasonal water flow fluctuation withdrawals; modification of hydroelectric operations; or, cessation of operations.

For any facility requiring an alternate water supply, the required draft OCP must address all aspect of the plan that can be addressed at the time of application including the items outlined above. Under 49-4-80(C) of the Act, the Department is charged with determining the volume of any required alternate water supply that may be needed to allow continued operations when those withdrawers who are not considered public water suppliers must suspend consumptive water withdrawals. Public water suppliers are exempt from Section 49-4-150(A)(1)(b) of the act, which requires use of alternate water supplies during low flow periods. It is anticipated that an applicant who is required to have a supplemental water supply will have worked with the Department prior to submittal of a formal permit application to determine the required supplemental supply source(s) and volume. The supplemental source(s) and volume will be incorporated into the draft OCP that will be reviewed by the Department. An approved version of the OCP will be included in the surface water withdrawal permit issued for the facility.

A complete listing of Operations and Contingency Plan Requirements can be found in Section E.4 of the surface water regulations, R.61-119, which can be found on the SCDES web site at <https://des.sc.gov/sites/des/files/Library/Regulations/R.61-119.pdf>.

G. Fees

29 Indicate the application fess included with this application: Appropriate Fees must accompany this application. Section 48-2-50(H) of the 1976 Code requires the Department to assess and collect fees when issuing, modifying and renewing surface water withdrawal permits. The fee required for issuance of a new surface water withdrawal not considered an existing user as of January 1, 2011 is \$7,500. The fee to modify an existing surface water withdrawal permit is \$2,000 unless the modification is sought during renewal of an expiring permit pursuant to Section I of R61-119. The fee for modification at the time of renewal is \$1,000. Requests for additional flow associated with an application for an initial permit for an existing user under 49-4-70(B)(3) are not required to pay an additional fee over and above the \$1,000 initial application fee. Applicable fees, payable to SCDES, must be submitted with the application for new permit issuance or modification of an existing permit. Applications submitted without appropriate fees are considered incomplete and will not be processed until the application fee is received.

H. Signature of Responsible Party

30 I hereby certify the information contained in this application is true, complete and fully represents the planned withdrawal of surface water for the use(s) detailed in this application:

Please fill in the appropriate boxes. All permit applications shall be signed by:

- For a corporation: a responsible corporate officer or the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the facility for which the permit is being requested.
- For a partnership or sole proprietorship: a general partner or the proprietor, respectively
- For a municipality, State, Federal or other public agency or public facility: either the principal executive officer, mayor or other duly authorized employee or ranking elected official.