

Wastewater Treatment System

The City of Dillon has two wastewater treatment plants which are the Little Pee Dee Wastewater Treatment Plant and the Cypress Pond Wastewater Treatment Plant. The two plants have a total of four discharge points which allow for the discharge of 5 million gallons of treated effluent wastewater daily. The City of Dillon also has an 1100acre spray field that is used to spray treated effluent. The plants are operated in compliance with EPA and SCDHEC regulations to ensure that all treated effluent that is discharged into the Little Pee Dee River or applied onto the Cypress Pond Spray Field meets permit limits. Both treatment plants are classified as an “A” wastewater treatment plant and must be operated by an “A” level licensed operator seven days a week.

The Little Pee Dee WWTP is an activated sludge wastewater plant that is permitted to treat 4 million gallons per day. This plant has two discharge points (001 & 002). Discharge 001 allows for the discharge of 4mgd of treated effluent to an un-named ditch which feeds to the Little Pee Dee River, and discharge 002 allows for the discharge of 4mgd of treated effluent by way of 11 miles of pipe to a 35 million gallon holding pond which is then sprayed on an 1100acre spray field (Discharge 004) in which only 637.3 acres are sprayed. The amount of treated effluent that can be discharged from 001 is dependent on the CFS-Cubic Feet/Second (water level) of the Little Pee Dee River. This reading is taken daily.

<u>River Reading (CFS)</u>	<u>Discharge to 001 (MGD)</u>		<u>Discharge to 002 (MGD)</u>
0 < 95	0		4.0
> 95	4.0	OR	4.0

The Little Pee Dee WWTP has two belt presses that dewater the sludge and empty into a 20yard lined container which is hauled by the City on a roll-off-truck to Lee County Landfill. 3-7 hauls are made Mon – Fri. An average of 1,139.76 tons of wet sludge (184.24 dry tons after drying) are disposed of yearly.

Cypress Pond WWTP is a Three Cell Aerated Lagoon System that treats wastewater to secondary limits to meet SCDHEC requirements for spray application. The plant is permitted to treat 1 million gallons per day. This plant discharges its treated effluent (Discharge 003) into the same 35 million gallon holding pond that the Little Pee Dee WWTP discharges (Discharge 002) its treated effluent into.

City of Dillon Water & Wastewater



1700 East Main Street - P. O. Drawer 431
Dillon, SC 29536
(843) 774-0047 or 774-0048
Fax (843) 774-0058
www.cityofdillonsc.us

Treated effluent that is in the 35 million gallon holding pond is then sprayed on 637.3 acres within an 1100acre spray field (Discharge 004). The 637.3 acres are divided into seven zones that contain 3,500 spray heads that are maintained or replaced on an as needed basis. 3.5 inches can be sprayed on each zone April-October (monthly total of 60,550,000 gallons). 2.0 inches can be sprayed on each zone November-March (monthly total of 34,610,000 gallons). Coastal Bermuda Hay is planted in the open zones and is harvested by a farmer contracted by the City of Dillon. There are 13 monitoring wells that are sampled and analyzed semi-annually for pH, Specific Conductance, Nitrate, Total Dissolved Solids, and Ammonia. The Depth to Water Table and Water Table Elevation are also measured semi-annually. The City maintains the spray field by cutting the laterals and fire zones, repairing pipe and spray-heads.

The City of Dillon wastewater department also has a Vactor truck for cleaning sewer lines and storm drains. The division maintains on-call status to provide 24-hour service. The Water & Wastewater Superintendent oversees the daily operation and maintenance of the Wastewater Treatment System.

Pee Dee Wastewater Treatment Plant



Influent wastewater feeding into the Big Basin for aeration



Orbal Basin aeration system



Clarifiers #1 & #2

Clarifier #3

used to separate solids from wastewater before secondary treatment



Chlorine and Sulfur Dioxide loading dock
Chlorine kills bacteria
Sulfur Dioxide removes Chlorine

Contact Chamber-chlorine kills bacteria as
wastewater travels through the chambers



Refrigerated composite sampler is used to collect a 24- hour composite sample on treated effluent for permitted parameter analysis



Treated effluent (Discharge 001) discharges to an un-named ditch that leads to the Little Pee Dee River



Sludge truck that is used to haul sludge to Lee County Landfill in a 30yard container

Cypress Pond Wastewater Treatment Plant



Three Cell Aeration Basin



Contact Chamber – Chlorination kills bacteria as wastewater travels through the chambers



3 – 300 HP pumps that spray treated effluent from the 35 million gallon holding pond onto 637.3 acres



Access road around 35 million gallon holding pond, shop and lab



Zone 4 - treated effluent is sprayed for the harvesting of Coastal Bermuda Hay