



South Carolina Department of Health and Environmental Control

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# Edisto RBC Surface Water Permitting & Registratio

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Rob Devlin  
Bureau of Water

# Water Quantity Programs

- **Capacity Use Program**
  - Since the 1970s
  - Issue permits in designated areas of the coastal plain over 3 million gallons in any month (100,000 gallons per day)
- **Water Use Reporting**
  - All registered and permitted groundwater and surface water withdrawers report their annual water use to the department
  - We compile this information and produce water use reports, which are available on our website for public use
- **Surface Water Withdrawal Program**
  - Since June 2012
  - Issue permits statewide if over 3 million gallons in any month

# Surface Water Regulation: R.61-119

## Types of Surface Water Withdrawers

Existing Surface  
Water  
Withdrawer

New Surface  
Water  
Withdrawer

Agricultural  
Withdrawer

## Surface Water Withdrawals

- Initial (Grandfather) permits – 197
- New permits – 10 (5 PWS and 5 Golf Course)
- Initial Agricultural Registrations – 90
- New Agricultural Registrations - 21

## Grandfather Permits

- Existing surface water withdrawers on January 1, 2011
- Permits were required to be issued for the largest of documented historical use, current permitted treatment capacity, **designed capacity of intake structure.**
- Required to submit Operation and Contingency Plan based on industry standards for conditions when flow is below the minimum in stream flows

## Agricultural Registration

- Registration rather than a permit, but report their water use
- Safe yield or “legally available water” is calculated to be 80% MADF at the point of withdrawal. This is the maximum amount that can be registered for a withdrawal

# Agricultural Registration

- New or Expanding Agricultural Withdrawals
  1. A proposed withdrawer must request its anticipated withdrawal quantity or increase on a form to the Department
  2. Safe Yield will be determined at the point of withdrawal, if the withdrawal is within the safe yield, it will be considered registered
  3. If the withdrawal is not within the safe yield, the registrant may modify its request to a reduced withdrawal quantity that is within the Safe Yield

# New or Expanding Surface Water Withdrawer

- Permit criteria for New or Expanding Surface Water Withdrawal Permit
  1. Withdrawals will be evaluated for reasonableness
  2. Withdrawals will be subject to minimum instream flow (20, 30, 40 percent of mean annual daily flow)
  3. Safe Yield will be calculated at the point of withdrawal
  4. Safe Yield shall be considered one factor, should withdrawals in excess of the safe yield be permitted, additional contingency planning shall be required
  5. New surface water withdrawals must be Public Noticed for 30 days (mandatory Public Hearing for IBT)





	Existing Surface Water Withdrawer	Agricultural Withdrawer	New or Expanding Surface Water Withdrawer
Permit Duration	Minimum 30 years not to exceed 50	Registrations never expire	Minimum 20 years not to exceed 50
Registered or Permitted Withdrawal Amount	Based on Greater of Historical Use or Intake Capacity	Based on Historical Use or Requester Use	Based on Reasonable Use Criteria
Public Notice	No	No	Yes 30-day Public Notice
Minimum Instream Flow Requirements	Subject only to Operation and Contingency Plan	Not subject to Minimum Instream Flow	Must meet Minimum Instream Flow (20, 30, 40)
Reasonableness Criteria for withdrawal	No	No	Yes



New or Expanding Surface Water Withdrawals		
Agricultural Registration	Withdrawal on River	Withdrawal on Reservoir (FERC) or ACOE
Conduct Safe Yield Analysis	Conduct Safe Yield Analysis	Request for FERC or ACOE approval
If within Safe Yield and Adjusted Safe Yield , it is deemed registered	If within Safe Yield and Adjusted Safe Yield, conduct Minimum Instream Flow	Public Notice Permit
	Use Flow model to analyze historical 20,30,40 flow	Issue Permit
	Review type and size of supplemental water source or contingency plan (Water Supply uses Drought Plan)	
	Determine if withdrawal will adversely impact current withdrawers	
	Public Notice Permit	
	Issue Permit	



	Existing Surface Water Withdrawer	New or Expanding Surface Water Withdrawer	Agricultural Withdrawer
Minimum Instream Flow Requirements (20, 30, 40)	Subject only to Operation and Contingency Plan	Must meet Minimum Instream Flow (20, 30, 40)	Not subject to Minimum Instream Flow
Operation and Contingency Plan	Only address appropriate industry standards for water Conservation	Contingency plan must discontinue water withdrawals from surface water that results in a decrease in flow	Not subject to operation and contingency plans
Operation and Contingency Plan for Public Water System	Public Water Systems must follow their Drought Plan	Public Water Systems must follow their Drought Plan	



## **Water Conservation Measures**

If requested to minimize water use further during periods of extreme drought... several measures to reduce water consumption, as follows:

- **Limit use of site car wash station.**
- **Stop all continuance trench flushes, except when required for safety purposes.**
- **Minimize the use of water for wash downs. Operating areas routinely wash containment areas to maintain housekeeping.**
- **Reschedule emergency response drills.**
- **Survey all areas to detect and eliminate leaks.**
- **Communicate to all plant employees the need to minimize water usage.**



## **MINIMUM IN-STREAM FLOW ACTIONS**

1. Reduce river water consumption to acceptable rate as directed by water authority, USGS or other government agency.
2. In the event of a complete loss of river water supply or a direction is received to cease water intake operations, the surface water plant will be idled and site management notified. County water will supplement as necessary to meet manufacturing operation demands.
3. If additional water reductions or restrictions are necessary and the county water source is unavailable or at reduced amounts the Site Service Agreement will be followed to address the order of any necessary curtailments regarding manufacturing operations.
4. During any low river water flow condition or drought condition the site will access water consumption totals and eliminate any unnecessary evolutions as appropriate.



South Carolina Department of Health and Environmental Control

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# Edisto RBC Groundwater Permitting

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Alex Butler  
Bureau of Water

# Capacity Use Program

- Issue permits in designated areas of the coastal plain for users over 3 million gallons in any month (100,000 gallons per day)
- Since the 1970s (Law was substantially overhauled in 2000)
- Water Use Reporting
  - All registered and permitted groundwater and surface water withdrawers report their annual water use to the department
  - We compile this information and produce water use reports, which are available on our website for public use



## Groundwater Use and Reporting Act Legislative Declaration of Policy

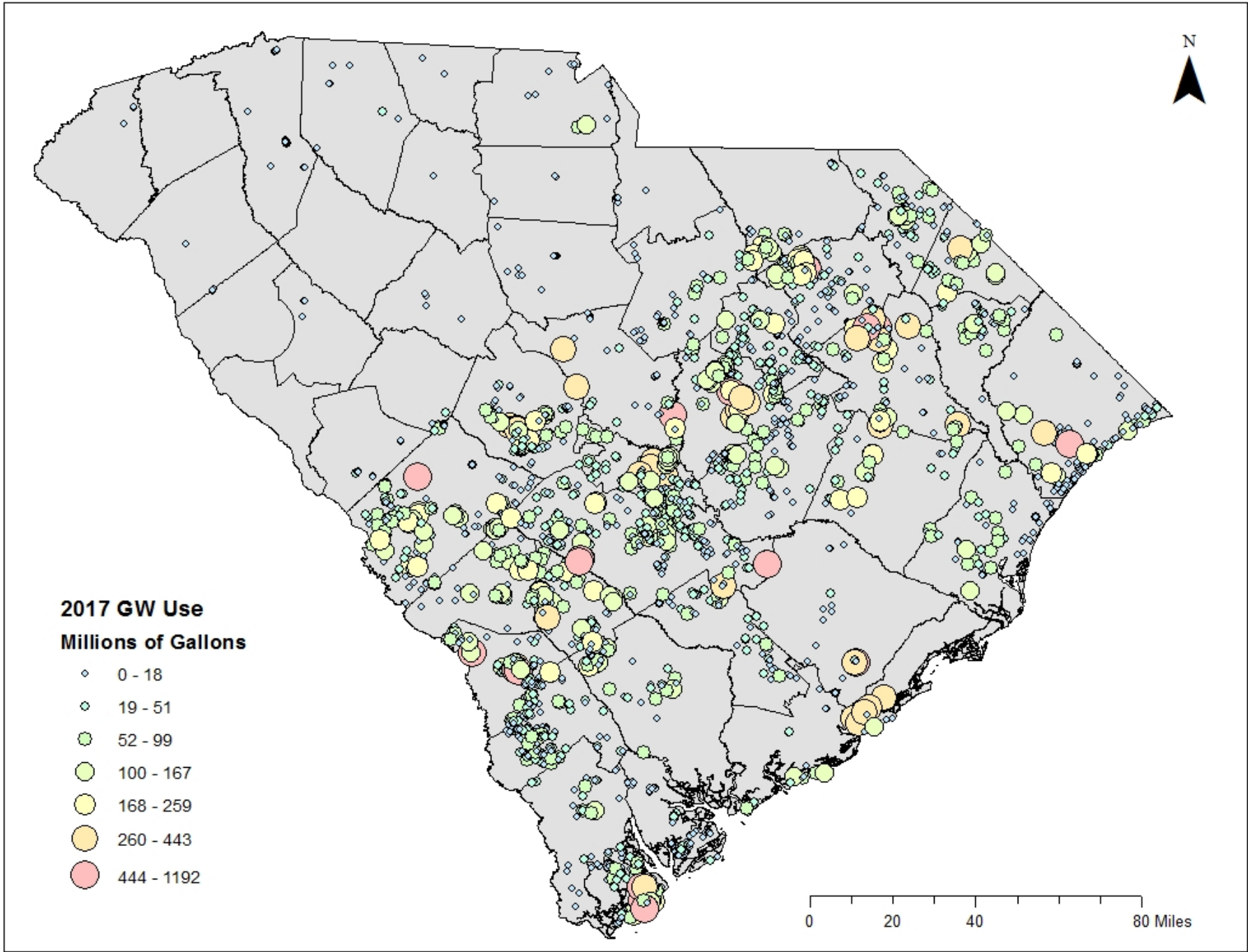
“The General Assembly declares that the general welfare and public interest require that the groundwater resources of the State be put to beneficial use to the fullest extent to which they are capable, subject to reasonable regulation, in order to conserve and protect these resources, prevent waste, and to provide and maintain conditions which are conducive to the development and use of water resources.”





## Capacity Use Area Designation 45-5-60(A)

In the State where excessive groundwater withdrawal presents potential adverse effects to the natural resources or poses a threat to public health, safety, or economic welfare or where conditions pose a significant threat to the long-term integrity of a groundwater source, including salt water intrusion, the board, after notice and public hearing, in accordance with the Administrative Procedures Act, shall designate a capacity use area.

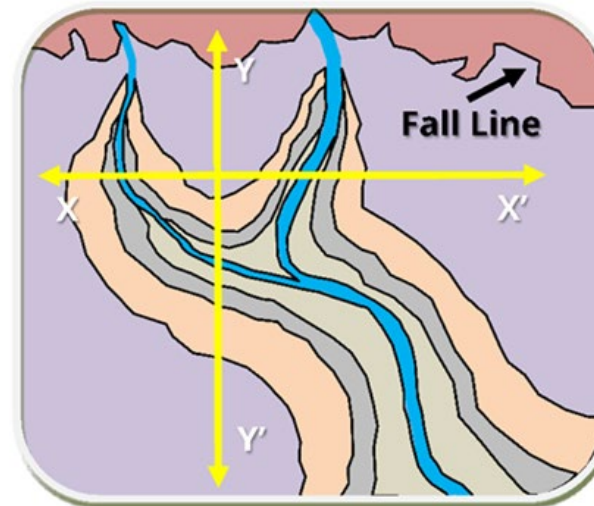
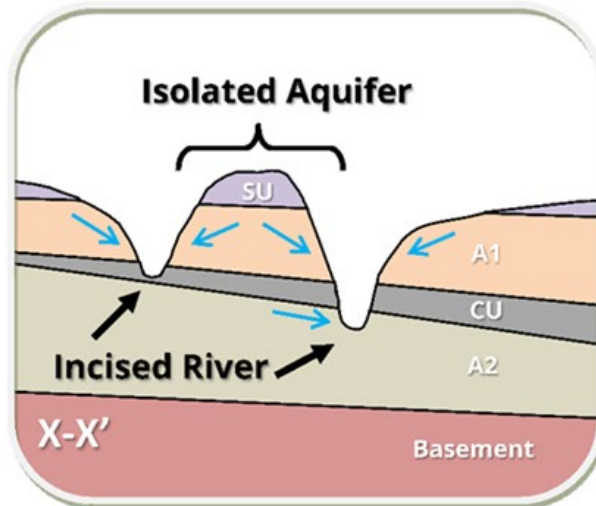
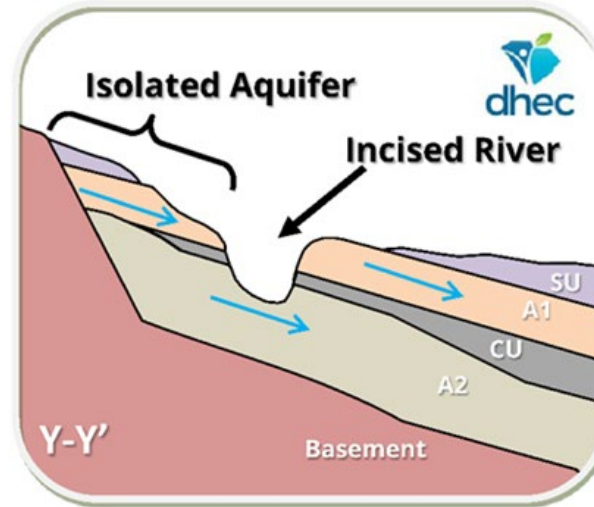
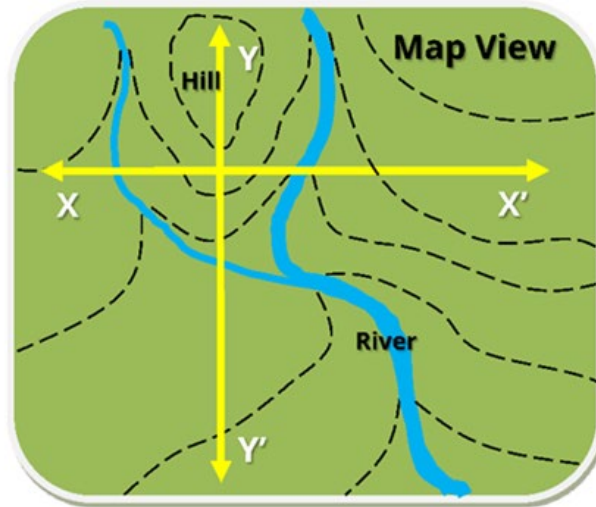


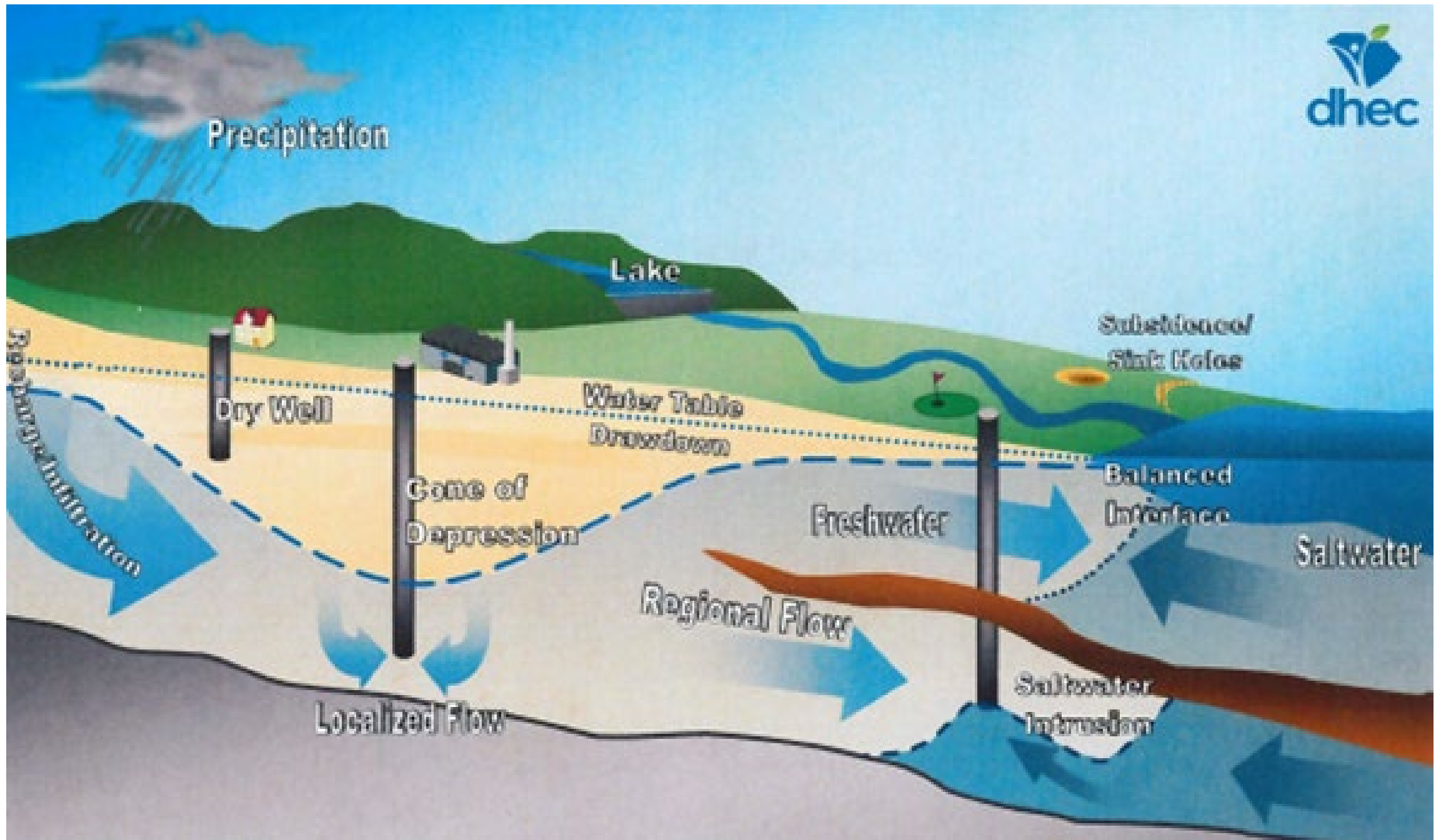


## Groundwater Management Planning 45-5-60(B)

After notice and public hearing, the department shall coordinate the affected governing bodies and groundwater withdrawers to develop a groundwater management plan to achieve goals and objectives stated in [Legislative Declaration of Policy] .

In those areas where the affected governing bodies and withdrawers are unable to develop a plan, the department shall take action to develop the plan.



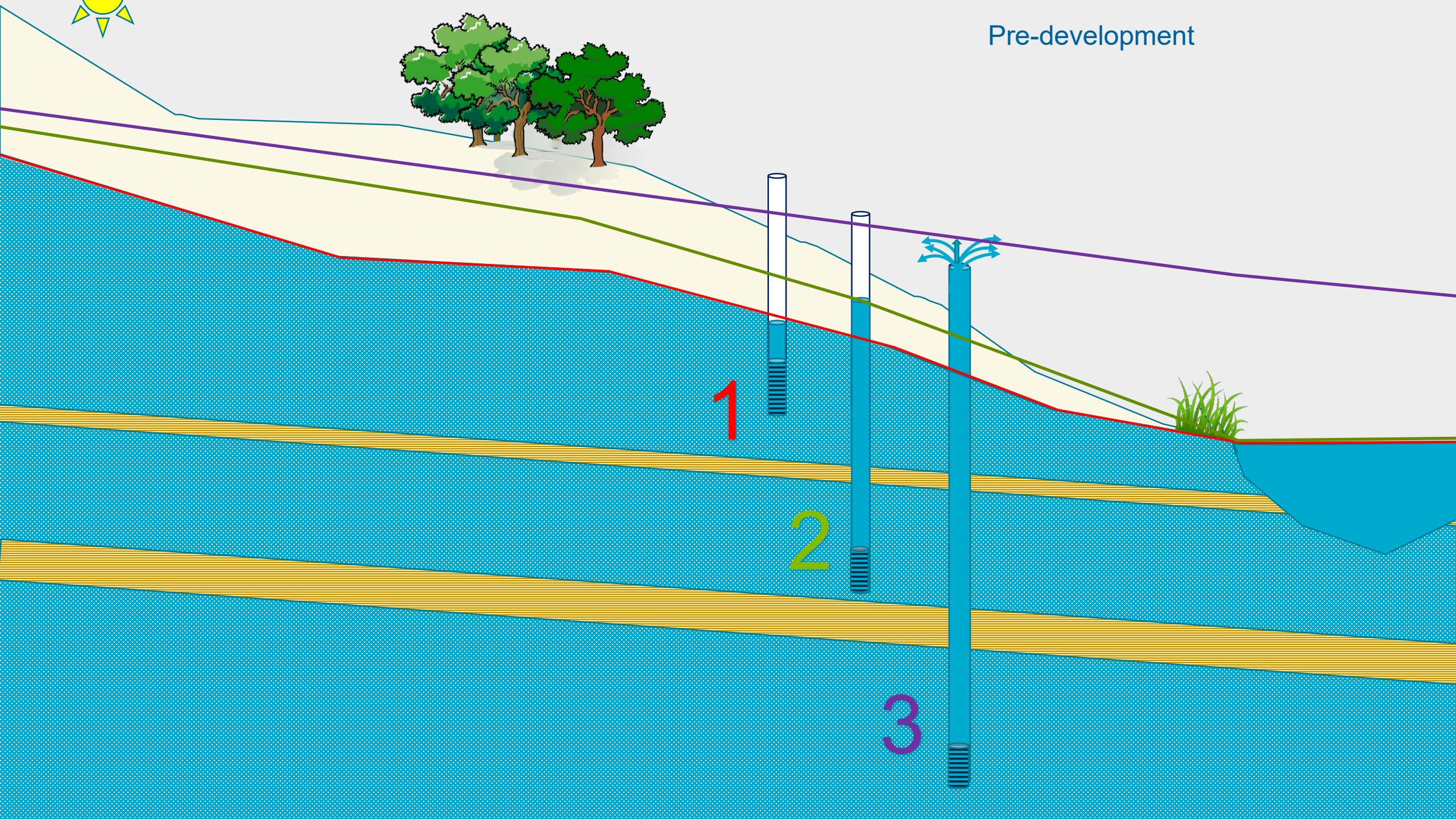




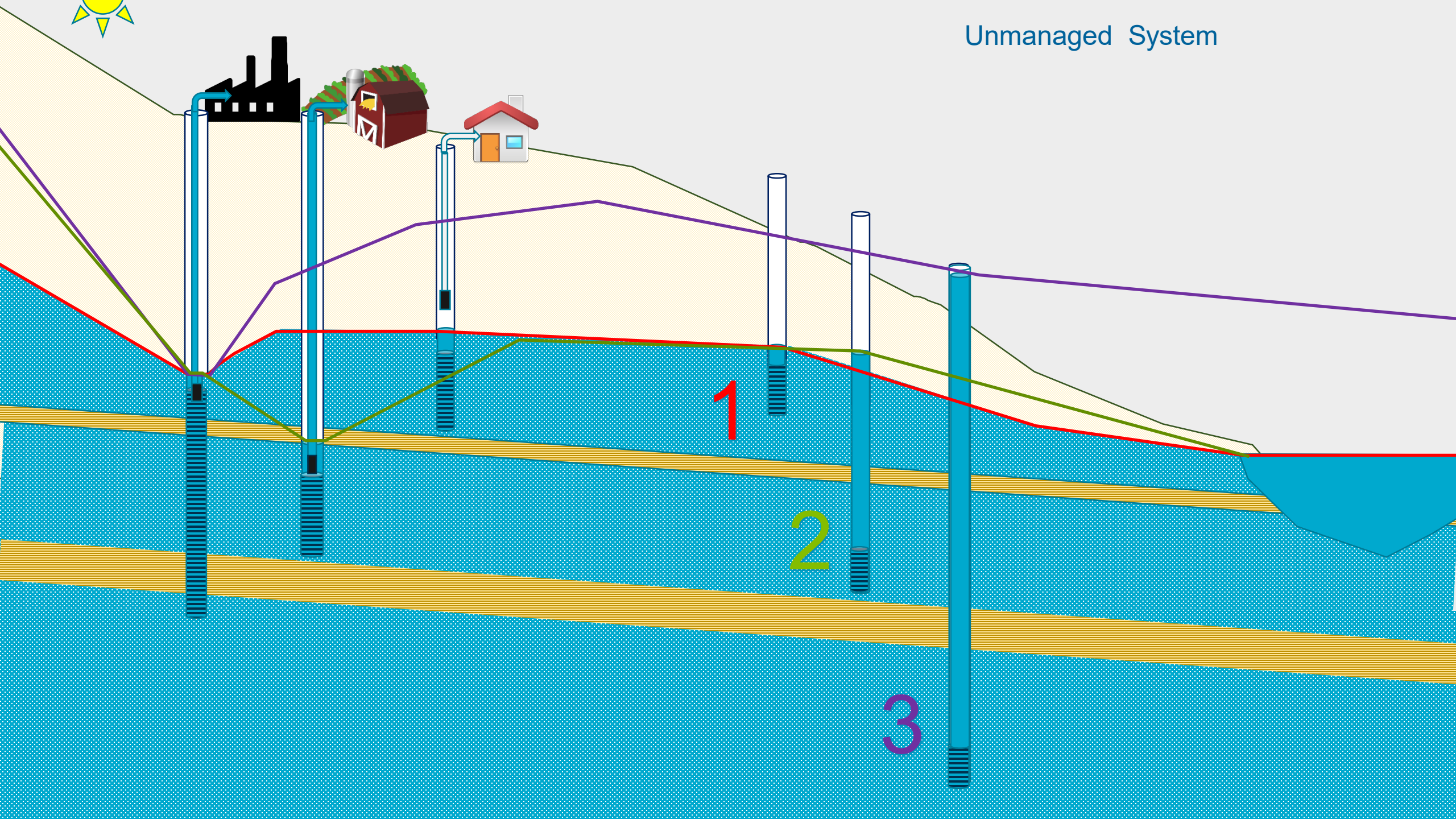
## Groundwater Withdrawal Permitting 45-5-60(C)

Once the board approves the groundwater management plan for a designated capacity use area , each withdrawer shall make application for a groundwater withdrawal permit . The department shall issue groundwater withdrawal permits in accordance with the approved plan.

Pre-development

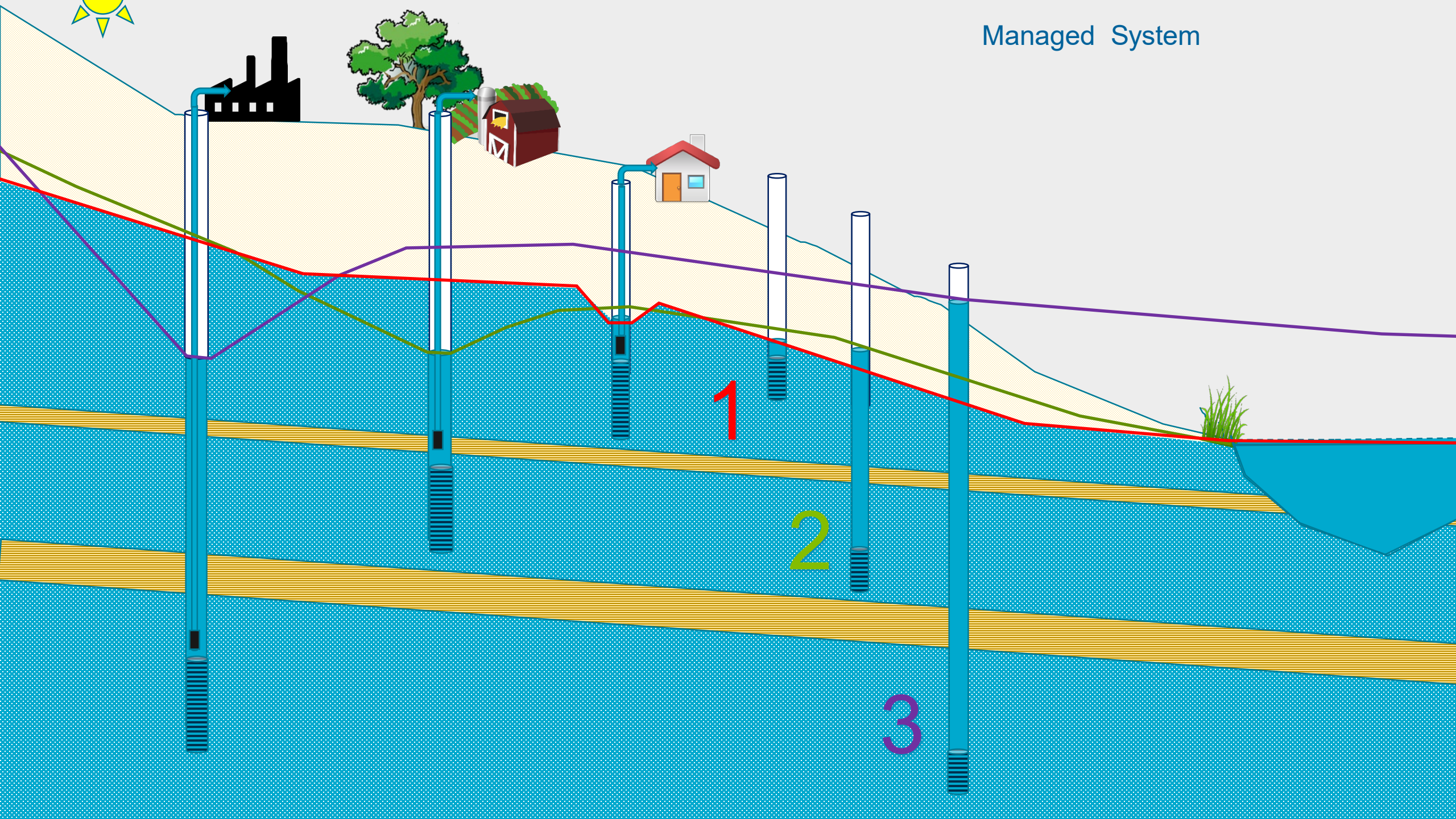


# Unmanaged System





Managed System



# Groundwater Balance

**Groundwater Deposits**  
Recharge  
Surface water inflow  
Water injection



**Change in Groundwater Storage (Savings)**  
Lowering of water table  
System compaction



**Natural Withdrawals**  
Surface water discharge  
Springs  
Evapotranspiration



**Well Withdrawals**  
Water supply  
Industrial  
Irrigation



# Permitting Process

1. An application and required documentation is submitted to the Department by a potential groundwater withdrawer
2. Department reviews application for completeness
3. Department performs a technical review of permit
4. All new and modified permits are Public Noticed
5. A Permit to Construct is issued if new wells are requested to be installed
  - Is not a Permit to Withdraw, only authorized construction of the well(s)
6. Permit to Withdraw is issued
  - If a new well was installed, the Department requires well records be submitted prior to issuance of a permit

