

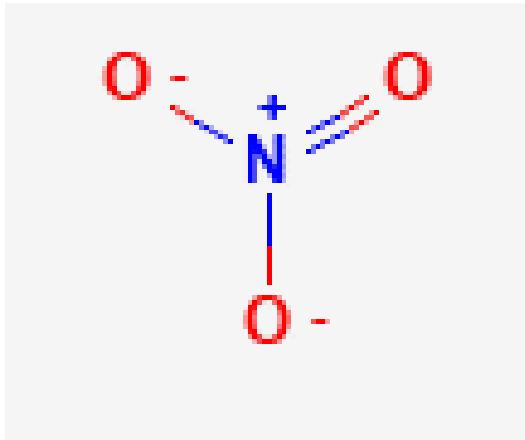


**TULE BASIN**  
**MANAGEMENT ZONE**

**NITRATE 101**  
**MODULE 3**

# What is Nitrate?

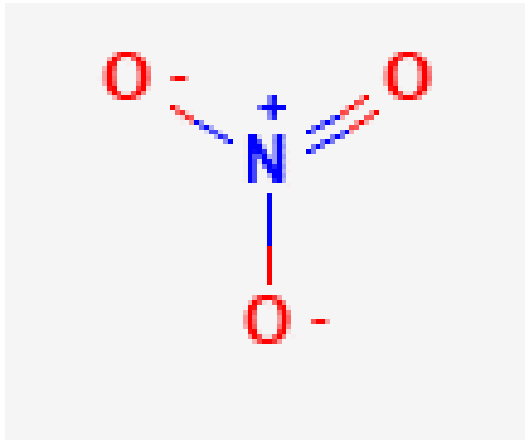
- Nitrate is a chemical composed of Nitrogen and Oxygen
- Nitrate can be produced naturally in the atmosphere via lightening or directly by humans and animals as waste products



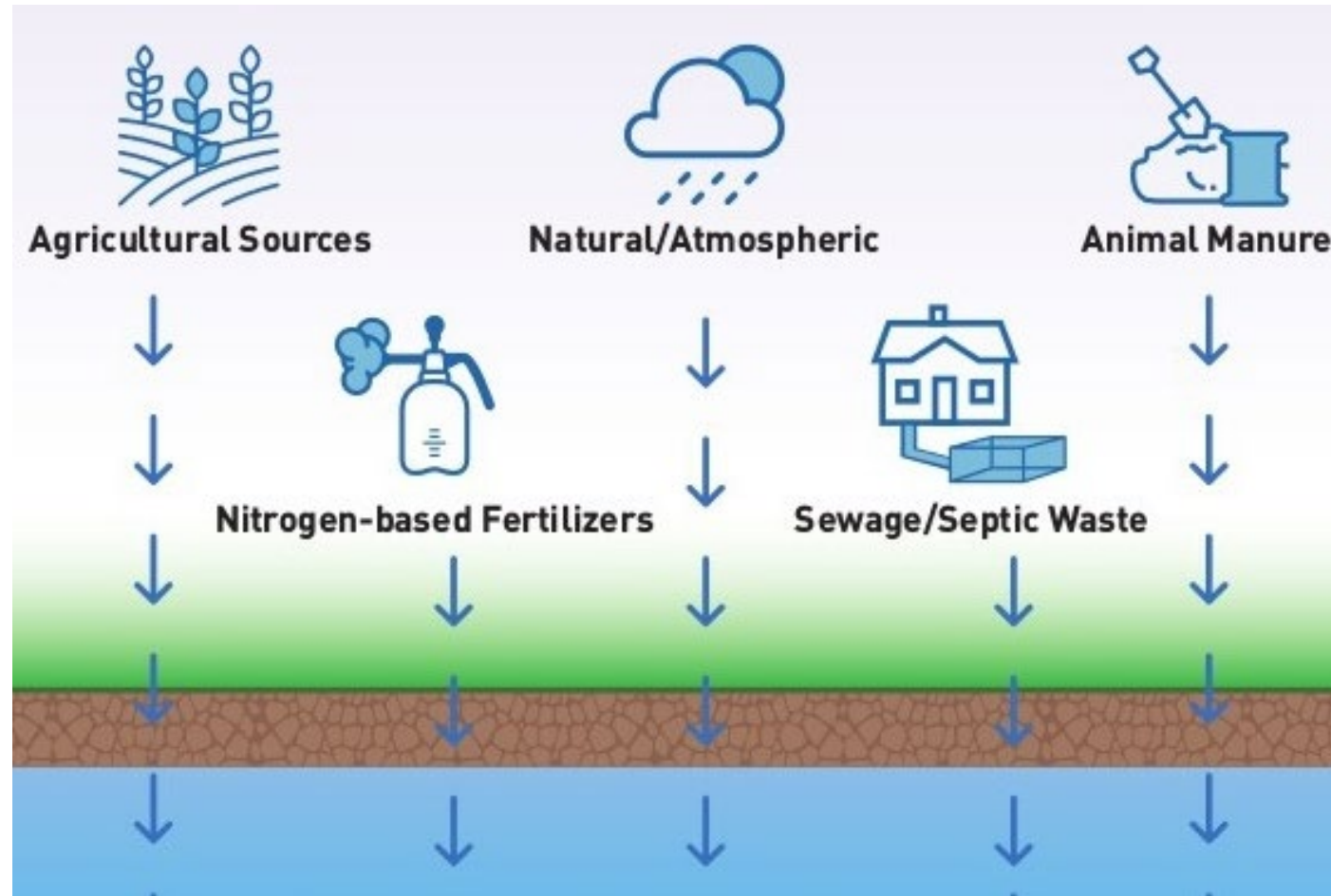
# What is Nitrate?

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- Nitrate is a special form of Nitrogen that plants need to grow



# Sources of Nitrate in Groundwater



# Nitrate in Groundwater

- The safe drinking water level for Nitrate is less than 10 mg/L (measure of concentration)
- Some local wells have Nitrate concentrations above 10 mg/L



# Nitrate in Groundwater

- Water that is above 10 mg/L of Nitrate should not be used for drinking, making formula, or cooking
- Water high in Nitrate can be safely used to bathe, clean, do laundry, wash dishes and grow crops



# Possible Health Impacts of Nitrate

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- Nitrate interferes with the blood's ability to carry oxygen and can cause nitrate poisoning called “methemoglobinemia” or “blue baby syndrome”
- Symptoms can develop quickly in infants and include shortness of breath and blueness of the skin and if untreated may be fatal.



# Possible Health Impacts of Nitrate

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- Medical attention should be sought immediately if these symptoms occur.
- **Children under 6 months old and pregnant women are the most at risk**

