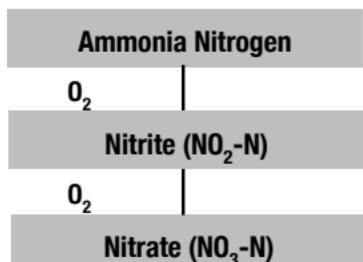
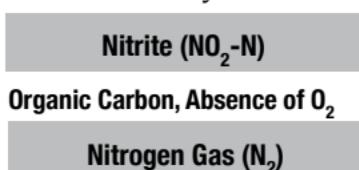


- Optimum pH 7.0 – 8.0
- D.O. > 2.0
- SRT > 5-8 days



- Denitrification ($\text{NO}_3\text{-N}$ to Nitrogen Gas)
- Conversion of Nitrates to Nitrogen Gas
 - » Requires carbon and anoxic conditions
- Optimum pH 7.0 – 8.0
- D.O. < 0.5 mg/l
- SRT > 8-10 days



- Chemical treatment
 - Supplemental carbon may be needed to provide proper Carbon:Nitrogen ratio (typical ratios range from 4:1 to 10:1)
 - Carbon sources: Methanol, Ethanol, Acetic Acid, Sucrose, MicroC2000, MicroC, Unicarb, etc.
 - Supplemental alkalinity may be needed to maintain proper pH by balancing the acid produced by nitrification as changes in pH can have adverse effects on nitrification
 - 7.14 mg Alkalinity (as CaCO_3) is consumed per mg $\text{NH}_3\text{-N}$ oxidized
 - Chemicals include: lime or bicarbonate