# WATER AND WASTEWATER REQUIREMENTS FOR MEAT PROCESSORS

SHELLIE R. CHARD, WATER QUALITY DIVISION DIRECTOR

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY



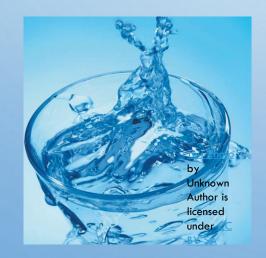
#### KEY REGULATORY PROVISIONS

- FEDERAL
  - SAFE DRINKING WATER ACT
  - CLEAN WATER ACT
- STATE
  - TOTAL RETENTION
    - TANK
    - LAGOON
  - "MINOR" WATER
  - LICENSED WATER OPERATOR

- LOCAL
  - CONNECTIONS
  - ORDINANCES
  - PRETREATMENT

#### PUBLIC WATER SUPPLY

- DRINKING WATER
- HAND WASHING
- "PROCESS" WATER
- CLEANING EQUIPMENT





This Photo by Unknown Author is licensed under CC BY-SA

#### SOURCES OF DRINKING WATER

- PURCHASE FROM MUNICIPALITY OR RURAL WATER DISTRICT
  - NO STATE OR FEDERAL REGULATION
  - **UTILITY BILL ONLY COST**
- NON-TRANSIENT NO COMMUNITY (NTNC)
  - TYPI
  - CONST. MIT FROM DEQ.
  - ANNUAL TO DEQ
  - MON FEES
  - CERTIFIC OPERATO REQUIRED
- MINOR WATER WELL

### NON-TRANSIENT NON-COMMUNITY FEDERAL PWS SYSTEM

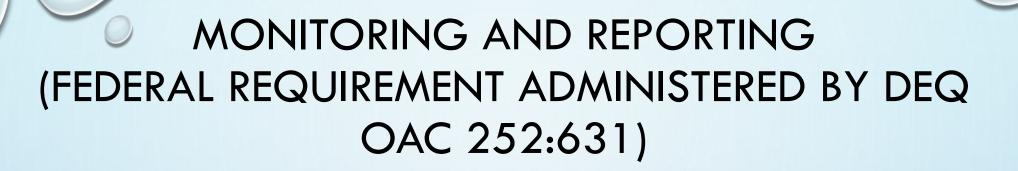
### (25 OR MORE EMPLOYEES OR REQUIRED TO HAVE A PWS BY USDA AND PURCHASE ISN'T AVAILABLE)

- CONSTRUCTION
- MONITORING AND REPORTING
- OPERATOR TRAINING

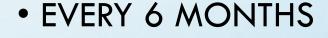


## CONSTRUCTION PERMITS (STATE ISSUED, SUBJECT TO FEDERAL INSPECTION OAC 252:656)

- TIER II DEQ PERMIT
- 30 DAY PUBLIC NOTICE PERIOD OF APPLICATION AND ISSUANCE OF PERMIT
- OK LICENSED PROFESSIONAL ENGINEER MUST DESIGN
- 120 DAYS IS A LONG PERMITTING TIMELINE; 45 DAYS IS DEQ TARGET ASSUMING APPLICATION, PLANS AND SPECIFICATIONS ARE COMPLETE



- DAILY (IF DISINFECTION IS REQUIRED)
  - DISINFECTANT RESIDUAL
- QUARTERLY
  - STATIC LEVEL AND PUMPING LEVEL
  - ALKALINITY, PH, STABILITY
  - VOLATILE AND SYNTHETIC
     ORGANICS
  - E. COLI



- LEAD AND COPPER
- ANNUAL
  - NITRATE
  - DISINFECTION BY-PRODUCTS
- EVERY 3 YEARS
  - NITRITE, ARSENIC, INORGANIC CHEMICALS



## OPERATOR TRAINING/LICENSE (STATE STATUTORY REQUIREMENT AND OAC 252:710)

- "D" LICENSE CLASS AND FEE
- EXAM ONE TIME FEE OF \$62
- ANNUAL RENEWAL FEE OF \$46
- 4 HOURS CONTINUING
   EDUCATION



#### "MINOR" WATER SYSTEM (OAC 252:624)

- 1 OR MORE WELLS
- SERVE LESS THAN 25 PEOPLE
- HAVE LESS THAN 15 CONNECTIONS
- PLANS SHOWN IN RULES (ENGINEER NOT REQUIRED)
- FEES
  - \$200 ONE TIME INITIAL PERMIT AUTHORIZATION
  - \$175 ANNUAL



by Unknown Author is licensed under

## MINOR WATER MONITORING

- UPFRONT
  - DISINFECTION
  - 2 BACTERIA SAMPLES
  - NITRATE
  - VOCS (IF NEAR UST)

- ROUTINE
  - COLIFORM BACTERIA 1/YEAR
  - CHLORINE 1/DAY (IF DISINFECTION IS REQUIRED)
  - VOCS 1/YEAR (IF NEAR UST)



#### WASTEWATER/LIQUID WASTE



This Photo by Unknown Author is licensed under CC BY





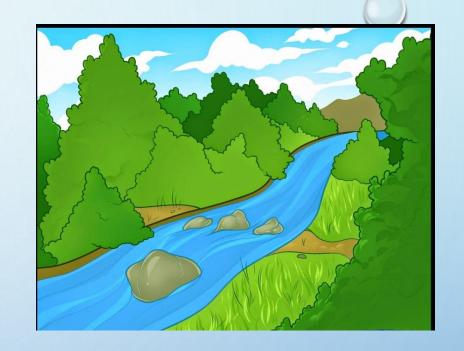
- DISCHARGE TO POTW
- DIRECTISCHARGE
- TOTAL RETENTION IMPOUNDMENT (AKA LAGOON) WITH OR WITHOUT LAND APPLICATION
- TOTAL RETENTION TANKS

#### DISCHARGE TO MUNICIPAL OR RURAL SEWER DISTRICT

- COMPLY WITH ORDINANCE AND PAY UTILITY BILL
- POSSIBILITY OF SIGNIFICANT INDUSTRIAL USER PERMIT BASED ON FLOW RATE AND CAPACITY OF POTW (FEDERAL PERMIT ISSUED BY DEQ OAC 252:606)
- PROCESS USED BY SMALL MEAT PROCESSORS (GREEN COUNTRY PREMIUM MEAT-BIG CABIN) TO LARGE PROCESSORS (BAR-S-ALTUS)

#### DISCHARGE TO WATER'S OF THE STATE (OAC 252:606)

- FEDERAL PERMIT ISSUED BY DEQ
  - 180-270 DAYS TO ISSUE
  - \$1000-\$10,000 ANNUAL PERMIT FEE
  - 30 DAYS PUBLIC NOTICE
  - SIGNIFICANT TREATMENT NEEDED
  - MONITORING AND REPORTING BASED ON RECEIVING WATER TO FEDERAL DATA SYSTEM
  - PERMIT UTILIZED BY VERY LARGE CORPORATE FACILITIES (TYSON, OK FOODS, ETC.)



#### TOTAL RETENTION (OAC 252:616)

- ALL IMPOUNDMENTS MUST HAVE SEPTIC/SETTLING TANK PRIOR TO IMPOUNDMENT
- LINER (CLAY, CONCRETE OR SYNTHETIC) MUST MEET 5.4X10<sup>-7</sup> CM/S
- IMPOUNDMENT WITHOUT LAND APPLICATION
  - BASED ON RULING BY PE BOARD MUST BE DESIGNED BY AN OKLAHOMA LICENSED PROFESSIONAL ENGINEER
  - STATE GENERAL PERMIT OKGC3T
  - 35 DAYS TO ISSUE ONCE APPLICATION IS COMPLETE
  - ANNUAL FEE \$100 FOR GENERAL PERMIT AND UP TO \$1,000

#### TOTAL RETENTION (OAC 252:616)

- IMPOUNDMENT WITH LAND APPLICATION
  - STATE INDIVIDUAL PERMIT
  - 105 DAY ISSUANCE PERIOD PLUS 30 DAY PUBLIC NOTICE
  - QUARTERLY WATER TESTING AND ANNUAL SOIL TESTING
  - ANNUAL REPORTING TO DEQ
  - ANNUAL FEE UP TO \$1,000
- TANK SYSTEM
  - PUMPED WHEN FULL
  - ANNUAL FEE \$330 TO \$970
  - PUMPING COST BASED ON VOLUME AND VENDOR





- 35-40 MEAT PROCESSORS (BEEF, PORK, POULTRY) WITH DEQ WASTEWATER PERMITS
- 3 NTNC PWS SYSTEM
- 1 MINOR WATER
- 38 RECENT INQUIRIES FOR NEW OR EXPANDING FACILITIES REGARDING WASTEWATER
- 0 RECENT INQUIRIES FOR NEW OR EXPANDING FACILITIES REGARDING DRINKING WATER



#### QUESTIONS

Shellie.Chard@DEQ.ok.gov (405) 702-8157 Michelle. Wynn@DEQ.ok.gov (405) 702-7163

