High Falls - Dekalb County

“And God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear: and it was so.”
PERMITTING PROCESS - 2006 ONSITE SEWAGE AND TREATMENT RULES
420-3-1.11 thru 420-3-1.23
Training for Environmental Staffs
Objectives of New Rules Permitting

• Keep Individual Application Process As Similar As Possible To Current Rules

• Major Differences will be Site Evaluation or Installation - Related
Objectives of New Rules Permitting

• Minimize the “Prove a Subdivision”
• Emphasize Development
• Same Process For Review of All Development
• A Three-Step Review Process
• Address Site Issues Early; Not After the Fact
Definition

BUILDING DEVELOPMENT

• An Action That Changes Property To Lead To Human Habitation or Creation of an Establishment
TERMS WE USE NOW: “Forget About It”

• System Type:  
  a) conventional  
  b) alternative

• System Serving:  
  a) residence  
  b) business

• Development:  
  a) subdivision  
  b) commercial
TERMS WE WILL USE:

"Remember"

- **System Type:**
  - a) Conventional Small-Flow
  - b) Engineered Small-Flow
  - c) Large-Flow (Engineered)

- **System Serving:**
  - a) Single Family Dwelling
  - b) Establishment

- **Development:**
  - a) Small-Flow
  - b) Large-Flow
Definition
Small-Flow Development

- Building Development on Single or Multiple Adjacent Parcels
- Includes Combined Flows of Applicant
- 8 or Less Bedrooms
- 1,200 Gallons Per Day or Less
Definition
Large-Flow Development

• Building Development on Single or Multiple Adjacent Parcels
• 9 Bedrooms or More
• More Than 1,200 Gallons Per Day
• System(s) May Be Small-Flow or Large-Flow
Large-Flow Development
Residential > 1,200 GPD

• Subdivisions
• Bond for Title Sale of Land
• “Strip Development”
• Condominiums, Town Houses and Apartments
• Mobile Home Parks and Campgrounds
• Multi-Family Dwellings
Large-Flow Development Establishments > 1,200 GPD

- Food Service Establishments
- Shopping Centers and Strip Malls
- Schools
- Churches
- Business, Industry and Other
Exceptions to Large-Flow Development Rules Process

• Dividing for purpose of bona fide gift
• Dividing under provisions of will or intestate succession
• Sale, lease, or rental without building development
• Dividing under provisions of Title 22-26-7
• Division into tracts of 3 acres or Greater
• Dividing land between immediate family members with no subsequent subdividing
Significant Challenges

• Folding Subdividing, Other Development and Large-Flow Systems Into the Same Process

• Getting Building Industry to Buy Into the Early Planning Process
Time Limitations of Old and New Permits

- Permits to Install Issued Before January 1, 2000, Are Void On 03/19/2006
- Permits to Install Issued 01/01/2000 thru 03/19/2006, Are Valid for 5 Years After Rules Adoption, Until 03/19/2011
- Permits to Install Issued 3/19/2006 Onward Are Valid for 5 Years from Permit Date
Time Limitations of New Permits & Approvals

• State-Issued Performance Permits Valid for Five Years

• Approval for Use Becomes Invalid After Two Years from Approval Date If It's Never Operational
New Permitting Outline

- CEP-2 Application
- CEP-3 Application, Parts A & B
- CEP-4 Permit to Install
- CEP-4 Approval to Use
- State-Issued Performance Permit – Review & Issuance by Board
Application Form CEP-2: Application for a Permit to Install A One-Step Process

- Small-Flow Development (< 9 bdrm)
  Small-Flow System (<= 1,200 gpd)
  Ex: 1 acre single parcel, 4-bedroom home

- Large-Flow Development (> 8 bdrm)
  Small-Flow System (<= 1,200 gpd)
  Ex: Subdivision Lot 1, 4-bedroom home
CEP-2 Application for Permit to Install

- Application Form
  - Name, address, location, etc.
  - # bedrooms, amount of flow, etc.
  - Site evaluation results/classification
  - Vicinity Map/Written Directions
- Legal Description/Deed
- Plot Plan
- Site Evaluation, Soil Test Results & Certification
  - ESTABLISHMENTS
    - Explanation of Use of Building and Occupancy
    - Floor Plan
CEP-2
Application for Permit to Install Plot Plan

- Lot Dimensions, Size
- Locations/Descriptions:
  - Structures
  - Underground Utility Lines
  - Surface Water/Drainage Features/Slopes
  - Dumps, Mining Areas, Caves, Sinkholes, etc.
  - Soil Test Holes/Pits
  - OSS Layout (more on next page)
  - Cut/Fill Areas
    - Evaluation of Impact on Tests/OSS
    - Evaluation Performed by a PSC
CEP-2
Application for Permit to Install Plot Plan

Onsite Sewage System Drawing Layout

• Tanks, Pump Chambers and Pumps
• Effluent Disposal Field/Replacement EDF
  – Maximum and Minimum Trench Depths
• Aggregate and Cover
• Per Cent of Slope and Direction of Slope
• Relative Ground Elevations
  – 1-Ft. Contours in Areas > 25% Slope
Construction Plan for All Engineered Systems

- Temporary Bench Mark - Location & Elevation
- Lot elevations and One-ft. Contours
  - Proposed Effluent Disposal Field Area
  - Within 25 Feet of the EDF Area
- Detailed Layout to Scale of OSS
- System Design Calculations
- Engineering Specifications
- Recorded Surveyed Plat
- Written Plan for Protecting EDF/REDF During Lot Development
Construction Plan
 Detailed Layout to Scale of OSS

• Treatment Devices
• Pipe Details
• Maximum and Minimum Depths (Relative to Temporary Benchmark)
• Cross Section View of the EDF
• Profile View of the OSS with Elevations (Relative to Temporary Benchmark)
  - Plumbing Stub-Out
  - Pipe Inverts
  - Tank Inlet and Outlet
  - Trench Bottoms
Construction Plan
System Design Calculations and Engineering Specifications

Calculations
- Tank Sizes
- EDF Sizes
- Pumps
- Pipe Sizes

Specifications
- Materials
- Pump Details
- Electrical Connections
- Methods of Construction
- Engineering Inspection Schedules
- Operation & Maintenance Procedures
Construction Plan
Recorded Surveyed Plat

- Lot Dimensions with Size in Acres or Square Feet
- Dwelling(s), Establishment(s), Structure(s)
  - Drawn to Scale
- Effluent Disposal Field and Replacement EDF
  - Drawn to Scale
  - Shown as Restricted Areas
Health Dept. Review of CEP-2 Applications

• Complete Review Within 10 Working Days
• Incomplete Application
  - Notify Applicant Verbally or In Writing
  - Document Notification
    • Incomplete > 90 Days >> Application Denied
• Complete Application and Favorable Field Review
  - Issue Permit to Install: With or Without Conditions
• Unfavorable Field Review
  - “Back to Square One!” Re-Submittal/Re-Designed
  - Deny Permit in Writing. Offer Appeals Procedure.
Permit To Install/Repair

• “One Thing That Doesn’t Change!”

Blue Hole Falls, Elizabethton, TN
CEP-3 Application for Large-Flow Development

- Part A  - Site Preparation Plan
  (3 Phases or Parts)
  - Phase 1 Intent to Develop
  - Phase 2 Field Review
  - Phase 3 (Final) Site Preparation Plan

- Part B
  - Application for a Large-Flow System
Application Form CEP-3
A Three-Step Process

• Large-Flow Development
Proposed to use Small-Flow Systems
Ex: 50 Lot “Typical” Subdivision
Completes Part A of CEP-3

• Large-Flow Development
Ex: 5,000 gpd Mobile Home Park
Large-Flow System(s): 2 x 2,500 gpd OSSs
Small-Flow Systems Ex: 5 x 1,000 gpd OSSs
Completes Part A and B of CEP-3
SITE PREPARATION PLAN (SPP)

• Required For:
  - Large Systems ( >1,200gpd )
  - Large-Flow development

• Phases:
  - 1. Notice of Intent “Office” Visit
  - 2. Site Investigation Field Visit
  - 3. Site Preparation (Final) Plan
Reasons For Site Preparation Plan

• Initiate Early Involvement of Health Dept.
• Protect the Proposed Effluent Disposal Field and Replacement EDF Areas
• Aid the Health Dept. in Determining the Suitability of a Site for Onsite Sewage Treatment and Disposal
• Determine the type and location of the onsite sewage system(s) to be installed
• Avoid costly and untimely delays later on
SITE PREPARATION PLAN
PHASE 1
NOTICE OF INTENT

• Discussion Between PHE & Developer/Design Team
  - Planned Development
  - Method of Onsite Sewage Treatment and Disposal
  - Method of Site Evaluation
  - Test Site Locations
  - Potential Site Restrictions
  - Lot Sizes (if applicable)
  - Availability of Public Water and/or Sewer
SITE PREPARATION PLAN
PHASE 1 NOTICE OF INTENT

• Developer Supplies:
  - Intent to Develop Form
    • CEP-3, Part A, Phase I
  - Preliminary Soils Map
    • Requires PSC
  - Developer May But Not Required to Supply:
    • Plat of Property
    • Vicinity Map/Written Directions
    • Topo Map of Property
SITE PREPARATION PLAN
PHASE 2
FIELD REVIEW

• Subsequent to Site Evaluation
• Developer/Tester/PHE at the Site
• Discussion
• Agreement or Further Evaluation
SPP PHASE 2
DISCUSSION ITEMS

• Site Evaluation Results
• Preliminary Plat
  - Soils Map Overlay
  - Topographic Overlay
• OSS Plans
• Lot Modification Plans
SPP PHASE 2 DISCUSSION ITEMS

- Site Evaluation Results
  - Soil Mapping, Morphology or Boring Data
  - Perc Rates
  - Restrictive Layers
    - Groundwater / Redox / Chroma 2 Indicators
    - Rock
    - Slope
  - Other Soil and Landscape Issues
  - Flooding Frequencies
Preliminary Plat

• Soils Map Overlay
• Topographic Overlay
• Lot and Street Layout
  - Lot Sizes
  - Soil Tests
  - Probable Location of Dwellings/Establishment(s)
  - Easements
  - Water Lines, Wells
SPP PHASE 2 DISCUSSION ITEMS

• Onsite Sewage System Plans
  - OSS options
    • Conventional
    • Engineered
    • Engineered w. Advanced Treatment
    • Large Flow
    • Decentralized
SPP PHASE 2 DISCUSSION ITEMS

• Onsite Sewage System Plans
  - Actions to Protect Effluent Disposal Field and Replacement EDF Areas
SPP PHASE 2 DISCUSSION ITEMS

• Existing/Proposed Lot Modifications
  - Effect on reported soil test results
  - Effect on proposed OSS operation
SPP PHASE 2 DISCUSSION ITEMS

Non-Agreement re: Site Evaluation & Field Investigation
- Additional testing / evaluation
- PSC visiting / mapping site
- Other professional evaluation
SITE PREPARATION PLAN
PHASE 3
FINAL SPP

- Develop When Phases 1 & 2 Complete
- Application Form - CEP-3, Part 3
- Site Evaluation - All Test Results and Certification of Results
- Surveyed Plat w. Legal Description
- Written Plan to Protect EDF/REDF(s)
SPP PHASE 3
SURVEYED PLAT

- Lot Sizes, Dimensions and Layouts
- Dwellings, Establishments & Structures
- Soil Test Sites
- Soil Test Certification
- Property Elevations and Slopes
  - 2-ft Maximum Contours
  - Specifically Show Areas with Slope > 25%
SPP PHASE 3 - SURVEYED PLAT
(Not Specifically in Rules but Needed)

• Underground Utility Lines
• Easement Areas
• Lot Sizes Not Including Easements
  Such as Water Storage Easements
SPP PHASE 3
SURVEYED PLAT

• Locate On Property & Within 100’
  - EDFs/REDFs Proposed and Existing
  - Surface Waters (Swamps, Marshes, Wetlands, Springs, etc.)
  - Frequently flooded areas
  - Hydric soils
  - Drainage features Proposed and Existing
  - Storm Water Retention Areas
  - In-Ground Swimming Pools
  - Wells Proposed and Existing
SPP PHASE 3
SURVEYED PLAT

• Locate On Property & Within 300 Ft.
  - Landfills, Open / Covered Dumps
  - Surface Mining Operations
  - Caves
  - Sinkholes

• Locate on Property & Within 500 Ft.
  - Sanitary Sewer Systems
  - Public Water Sources
  - Water Lines
SPP PHASE 3
WRITTEN PLAN

• Describe and Give Reasons For Existing or Proposed Lot Modifications of the Developer
  - Existing or Proposed Cut Areas
  - Existing or Proposed Fill Areas
SPP PHASE 3
WRITTEN PLAN

- Areas That Have or Will Have Extensive Grading or Modification Within EDF or REDF or Within Setback Buffer Zones (Typically 25 Ft or Less from EDF/REDF

• Detailed Evaluation by a Professional Soils Classifier of the Effect of Modifications on the placement and operation of the EDF or REDF
SPP PHASE 3
WRITTEN PLAN

• Modifying Property by the “Cut and Fill” Method
  - Accepted Design Manual
  - Provisions of 420-3-1-.67
  - Design with Advanced Treatment
SPP PHASE 3
WRITTEN PLAN

• Protecting the EDF and REDF(s)
  - Staked and Flagged
    • For Identification
    • For Protection
  - Other Protective Measures as Planned

• Site or Lot Modifications Not In Approved Plan May:
  - Result In Approval Revocation
  - Require Detailed Professional Evaluation
Health Dept. Action on SPP PHASE 3

• SPP & Surveyed Plat
  - Approval [w/conditions]
  - Disapproval [w/reasons; appeal process]
  - Approval Withheld [state pending actions to be accomplished or information to be supplied]

Document All in Writing!
REVOCATION OF SPP APPROVAL

- Site/Lot Improperly Classified
- Site/Lot Developed or Altered Inconsistent with Plan
SPP APPROVAL

• Recording of a Final Subdivision Plat
  - Covenants, Restrictions
  - Areas Reserved for EDF and REDF
  - Copy to Local Health Department
  - Statement Affixed to Plat (See Sxn. 100)
  - Valid Unless Change in Conditions

Note:
  • All other items on surveyed plat do not have to be on recorded plat
Large-Flow Developments with Small-Flow Systems (Subdivisions)

- Site Preparation Plan
  - Phase 1, Phase 2, Phase 3
  - CEP-3, Part A
    - Applicant: Developer
- Applications* for Small-Flow Development
  - CEP-2s ... But Refer to the Development’s SPP
    * Applicant: Buyer/Property Owner
SUBDIVISION LOTS

- Developer Must Complete SPP
- Buyer Must Develop in Accordance with Approved SPP
- Buyer Must Receive Approval from LHD Prior to Diverting from SPP
- Failure to Follow SPP: Revocation / New evaluation / New submittal
- Owner Submits Application to Install
Large Flow Developments With Large Flow System(s)

• Site Preparation Plan
  - Phase 1, Phase 2, Phase 3
  - CEP-3, Part A

• Application Requirements
  - CEP-3, Part B
  - State-Issued Performance Permit
Large Flow Developments With Large Flow System(s)

Application Requirements

- Complete Part B of CEP-3 Application
- Submit Plans and Specifications
Large Flow Developments With Large Flow System(s)

Plans and Specifications

- Surveyed Plat
- Site Evaluation Results
- Detailed Layout of the OSS and Sewer Collection System (i.e., Construction Plan)
- Specs on System Sizing and Design Treatment
- Contingency Plan
- Operation and Maintenance Manual
Be Constant. Be At Peace.