Permitting 101

KAMM Regional Training
Why do we issue permits?

✓ Permits help ensure protection for property owners and governmental entities

✓ May be required by federal, state, local agencies depending on activity

✓ This presentation will focus on floodplain and water quality (401/404) permitting
  **Other permits may be required**
Environmental Permits

✔ Kentucky One Stop
  ➢ Environmental Licenses/Permits
    ❑ Natural Resource Management
    ❑ Environmental Protection
    ❑ Public Utilities
    ❑ Conservation

✔ http://onestop.ky.gov/start/Pages/environmental.aspx
Environmental Protection

KY Department for Environmental Protection

- Division of Air Quality
  - Regulates air contaminant sources

- Division of Waste Management
  - Regulates and assists with recycling, Superfund sites, solid waste, underground storage tanks, and hazardous waste products

- Division of Water
  - Regulates sewer/waste discharge into KY waters, withdrawal of water exceeding 10,000 gallons per day, construction and physical disturbance activities along streams and other water-related activities
State Floodplain Permitting

✔ Kentucky Division of Water (KDOW) Floodplain Management section has the primary responsibility for the approval or denial of proposed construction and other activities in the 1% annual chance floodplain of all streams in the Commonwealth

➢ Typical activities permitted:
  - Dams, bridges, culverts, residential and commercial buildings, placement of fill, stream alterations or relocations, small impoundments and water and wastewater treatment plants

☐ KDOW Stream Construction Permit Application

➢ Activities that result in physical disturbances to wetlands or streams may also require a Water Quality Certification
State Floodplain permitting

✓ Permits required by KRS 151

- KRS 151.250 - establishes the requirements for obtaining a floodplain development permit
- KRS 151.280 - establishes penalties for commencing without a permit and requires notification for any deviations in permitted activities
- KRS 151.320 - requires the judge executive of each county or the mayor or chief executive officer of each city to concurrently enforce with the cabinet, within their respective counties and cities, the provisions of KRS 151.250 or 151.280 and the rules and regulations issued thereunder.

✓ Applicable regulations in 401 KAR 4:060

✓ http://www.lrc.state.ky.us/kar/401/004/060.htm
KDOW Basic Floodplain Permitting Requirements
Permitting Requirements

✓ A state and local floodplain permit is required for all development along or across a stream in the Special Flood Hazard Area (SFHA) or that area inundated by the 1-percent annual chance flood.

- SFHAs are area inundated by the 1-percent annual chance flood.
  - They are designated as A and AE zones on the community’s Flood Insurance Rate Maps (FIRMs)

- Up to one square mile drainage area
- Some exceptions may apply

✓ Local floodplain ordinances may be more stringent than state or federal regulations
Floodways

✓ Nothing may be placed within a floodway that will cause any rise in Base Flood Elevation (BFE)
   ➢ Engineering analysis required
     □ Engineer should complete a ‘No-Rise’ Certificate

✓ In Zone A SFHAs (areas where no floodway is identified), proposed encroachments (fill, construction, etc.) must not result in more than 1 foot increase in BFE
Floodways Cont.
Finding the Floodway

1% CHANCE FLOODPLAIN

RIVER
Finding the Floodway

1% CHANCE FLOODPLAIN

RIVER
Finding the Floodway

1% CHANCE FLOODPLAIN

SURCHARGE = 1 FT

RIVER
Finding the Floodway

- Floodway
- 1% Chance Floodplain
- Surcharge = 1 FT
- River
Residential Development in SFHAs

✓ The lowest floor of any new or substantially improved structure must be elevated to at or above BFE
  ➢ Includes basement, mechanical equipment, and duct work

✓ Fully enclosed areas below the lowest floor require a total net area of 1 square inch of vent space per square foot of enclosed area
  ➢ Minimum of 2 openings
  ➢ The bottom of the openings shall be no higher than 1 foot above grade

**The applicant should submit an Elevation Certificate to the floodplain administrator when the building foundation is complete**
Residential Development Example
Residential Development Example

Top of Lowest Floor

BFE
Residential Development Example

Top of Lowest Floor

Flood Vents
Residential Development Example

- Top of Lowest Floor
- Community Freeboard
- Flood Vents
- BFE
Manufactured Homes in SFHAs

✓ For a manufactured home outside of an existing manufactured home park or subdivision, the requirements are the same as for site-built homes
  ➢ Manufactured homes must be elevated and properly anchored to a permanent foundation

✓ Within an existing manufactured home park or subdivision the community has the option of either:
  ➢ Requiring the home to be elevated at or above the BFE; or
  ➢ Have the home elevated on reinforced concrete piers, blocks, etc., to at least 36 inches above grade

  ❑ In the event of substantial damage to the mobile home (equal or exceeds 50% structures pre-damage value), a replacement manufactured home must be elevated to or above the BFE
Non-residential Development in SFHAs

✓ The building must be elevated to at or above the BFE

✓ In lieu of elevation, the building may be floodproofed to a minimum of 1 foot above the BFE

- Available ONLY on non-residential development
- If floodproofed, the applicant must submit an "as built" Floodproofing Certificate certified by a professional engineer or architect
Non-residential Development
Floodproofing Example

DRY

WET
Tips for State Floodplain Permits

✓ Provide site map and FIRM of proposed site
✓ Provide latitude/longitude of proposed site
  ➢ Submit site and development plans
✓ Describe the type development
  ➢ Fill, structure, streambank stabilization, etc.
✓ Provide public notice
✓ Provide proof of easement rights
  ➢ Owner/permittee must initial/acknowledgement
✓ The applicant and local floodplain administrator signatures should be present on application
Tips for State Floodplain Permits


✅ Note: Application for permit to construct along or across a stream and Water Quality Certification are the same application

➢ Also note: Stormwater control may be required
Local Community Floodplain Permit Process
Local Permitting Procedure

1) Floodplain Determination

2) Determine if project meets the definition of development in your community’s ordinance

3) Determine what type of permit(s) are required
   - USACE, KDOW floodplain, water quality, local floodplain, etc.
   - Provide guidance to applicant for applicable federal and state applications
     - Wetlands: [https://www.fws.gov/wetlands/Data/Mapper.html](https://www.fws.gov/wetlands/Data/Mapper.html)

4) Require local floodplain development application
   - Provide guidance to applicant for local application

5) Issue Local Floodplain Permit
   - Should be on community letterhead with CEO or the local floodplain coordinator’s signature
Local Floodplain Coordinator Duties

- Notify applicants of required permits
  - Assist applicant with state floodplain application
- Once federal and state permits have been obtained, review local floodplain permit application
  - Local permit should be issued or denied based on application and community’s flood ordinance
- Inspect development (during and post construction)
- Ensure compliance/issue stop work orders
- Conduct additional inspections as needed
- Compile documentation for community records
  - Plans
  - Permits
  - Elevation Certificates
Keys to Effective Local Floodplain Permitting
Knowledge

✓ Read and understand your ordinance

✓ Educate the governing body

✓ Conduct outreach to the public
  ➢ Handouts
  ➢ Mailers
  ➢ Community website
  ➢ Newspaper notices
  ➢ Radio announcements

FLOOD DAMAGE PREVENTION ORDINANCE
FOR
Floodville, KY
01/01/2017
Local Permitting

✓ Avoid or Minimizing floodplain impacts
  ➢ Work with applicants to explore alternatives that may avoid or minimize impacts to the floodplain
  ➢ Avoid development in the floodway

✓ Floodway Encroachments
  ➢ Development in the floodway must be supported by engineering analysis
    ❑ “No-rise” certification
    ❑ Conditional Letter of Map Revision (CLOMR)
    ❑ Letter of Map Revision (LOMR)
Local Permitting Cont.

✓ Create a Log for FP Permit Actions

- The maintenance of a log or permit system is critical
- Your log or system should record:
  - Permit Number
  - Property Address
  - Flood Zone
  - Nature of Work
  - Project Certificates (no-rise, floodproofing, elevation, etc.)

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Manufactured Homes are extremely vulnerable to flood damage.

- You may wish to require an engineered foundation to ensure structural stability.
- Anchoring, tie-down, & permanent foundation requirements must be outlined in the floodplain permit.
Local Permitting Cont.

✅ Altering a Watercourse

- The carrying capacity of watercourse cannot be altered to be less than natural capacity
- An alteration cannot cause an increase in flooding upstream or downstream
  - If so, CLOMR and LOMR should be obtained
- Notify adjacent communities, KDOW, and FEMA prior to beginning alteration
Inspections

Inspection of Development

- No matter how careful you are when you issue a permit, good inspection and enforcement procedures are critical
- Required setback distances
- Foundations
- Fill
- Manufactured homes
Foundation Inspections

✓ The single most important part of FPM, is making sure that structures are elevated properly
  ➢ The best time to inspect is during stake-out, but no later than the footing inspection
✓ Require the builder/owner to submit an EC for construction drawings and when the floor elevation is set
✓ Check the elevation of the lowest floor
Foundation Inspections

✓ Crawl Spaces
  ➢ They must have vents or openings.
  ➢ Ensure that the interior grade is at or above the exterior grade.
    ❑ If not, insurance will treat it as a basement

✓ Flood Openings/Vents
  ➢ Plans for solid wall foundations must show the required number of openings, their location, size, and height above ground level.
    ❑ 1 square inch of vent opening for each square foot of enclosed space
    ❑ Minimum of 2 vents
Good vents
Bad vent... does not meet foundation requirements
Bad vent... does not meet foundation requirements. Bad vent... not within 1 foot of grade.
Fill Inspections

✓ Fill Inspection

- Inspect the fill during placement to ensure clean material, proper compaction, and slope requirements

- The elevation of the fill must be checked before building construction starts
  - Local coordinator may require elevation certificate for fill separately

- Letter of Map Revision Based on Fill (LOMR-F) is required to remove that property from the floodplain
Manufactured Homes Inspections

✓ Safe foundations are vital
✓ Pilings must be permanent and reinforced
  - NOT dry-stacked blocks
Final Inspection

- Verify that utilities and other building elements are above the BFE;
- Check flood openings and vents;
- Check for approved use of enclosed areas below the BFE;
- Check that fill has been placed according to plans;
- Verify that only flood-resistant materials are used below BFE;
- Collect the proper certificates;
- Document compliance.
Future Inspections

✓ You should conduct ‘windshield tours’ and look for new or unpermitted activity in the SFHA

✓ Take advantage of community officials already on the road
  ➢ e.g. Police, Fire, Water, etc.

✓ Take enforcement actions that are outlined by your ordinance.
Post-Damage Inspections

✓ After damage of ANY kind, you must determine if repair costs trigger the substantial damage requirements in your ordinance.

✓ FEMA has developed the Substantial Damage Estimator Tool to help in your damage assessments.

✓ Post-disaster efforts should include community outreach concerning the requirement for permits, possible mitigation actions, and the availability of Increased Cost of Compliance (ICC) funding.
Post-Damage Inspections

☑ Documentation!!

- Any damage assessments or improvements costs
- Permit application (including plans and notes)
- Copy of FIRM panel, FIRMette, or NFHL screen shot
- BFE determination
- Issued permit
- Documentation of inspections
- Elevation Certificate
- FEMA Letter of Map Change (if required)
Elevation Certificate

- Used to certify building elevations in SFHA
- Ensures compliance with community floodplain ordinances
- Required to properly rate structures for flood insurance
- Can be used to support a LOMC request
- Required for CRS
Clean Water Act and Section 401
Clean Water Act

✓ CWA as we know it passed in 1972
  ➢ Goal is to restore and to maintain the physical, chemical & biological integrity of nation’s waters.
  ➢ CWA is the framework for making our waters “fishable and swimmable.”

✓ Title IV of CWA includes:
  ➢ Section 401: Water Quality Certification
    ❑ Kentucky Division of Water (KDOW)
    ❑ Section 401 is written very broadly to give states’ ability to regulate activities and protect water quality.
  ➢ Section 404: Dredge and fill
    ❑ U.S. Army Corps of Engineers (USACE)
CWA Background

✅ 404 - U.S. Army Corps of Engineers certifies Section 404 permits

➢ USACE also certifies other sections of the CWA
  - Section 10  Navigable Waters
  - FERC      Hydro-projects

✅ State level of authorization for dredge or fill activities or operations is below the Ordinary High Water Mark (OHWM) of a jurisdictional stream or wetland
USACE Overview

Source: https://goo.gl/FDvhnL
USACE 404 Permits

✓ The US Army Corps of Engineers uses two types of permits to regulate physical impacts to streams and wetlands
  ➢ Nationwide Permits (NWP)
  ➢ Individual Permits (IP)

✓ KDOW must ‘certify’ Nationwide Permits every 5 years
  ➢ Currently in the process of recertification

http://water.ky.gov/permitting/Pages/CertificationNationwidePermits.aspx
KDOW Water Quality Certification

Water Quality Certifications are the state equivalent of the USACE 404 Permit. One is not valid without the other.

**General Certification**
- Suitable for smaller impacts (usually under 300 linear feet for streams; 0.5 acre for wetlands)
- Usually reviewed and issued within 30 days or less
- Less extensive review

**Individual Certification**
- Used for larger impacts
- More extensive review
- Detailed plans required
- Projects reviewed within 30 days of receipt to determine if additional information is required. Usually within 180 days, a certification will be issued
- Requires public notification and may require an Individual Water Quality Certification Fee
General Certifications

✓ General Certifications associated with emergency stream work have certified the following USACE’s Nationwide Permits with conditions:

- **Maintenance** - KDOW General Certification for Nationwide Permit #3
- **Bank Stabilization** - KDOW General Certification for Nationwide Permit #13
- **Minor Discharges** - KDOW General Certification for Nationwide Permit #18
- **Emergency Watershed Protection (EWP)** - KDOW General Certification for Nationwide Permit #37

✓ The project will not occur in a KDOW designated Special Use Water reach of stream. Visit [http://watermaps.ky.gov/forestry.html](http://watermaps.ky.gov/forestry.html) to see Special Use Waters near you.
Individual Certification

- Projects with stream impacts in excess of 300 linear feet or 0.5 acres of wetland impacts usually do not qualify for the general certification.

- Projects that propose excessive use of certain materials (such as grouted rip rap) may not qualify for general certification.

- Projects proposed to occur within a KDOW designated Special Use Water reach of stream **DO NOT** qualify for general certification.
Projects Exempt from WQC

Projects that follow the “Guidelines for the Removal of Stream Flow Obstructions” also known as the “One Step Removal Process” are exempt from review and Water Quality Certification authorization KDOW

- Highlights of “One Step Removal Process”:
  - Keep equipment out of the stream channel
  - Remove all collected material to an upland location
  - Do not conduct work during fish spawning season
    - April 15th - June 15th
  - Gravel bar excavation is limited to the material 12-inches and above the normal water level
  - Do not push material from within the stream against the sides of the stream banks
    - Stream material is loose and will exacerbate erosion and flooding
WQC Application

✓ NOTE: Application for a Water Quality Certification and a permit to construct along or across a stream are the same application.

401/404 Example

- **404 USACE:** Nationwide Permit
  - Meets the conditions for NWP #13
- **401 KDOE:** Individual Certification
  - Doesn’t allow creek rock to be used

- Stream bank stabilization
  - One side of the creek
  - Creek rock
401/404 Example

- 404 USACE: Individual Permit
- 401 KDOW: Individual Certification
  - West Fork Pond River is an OSRW
- Creek crossing
  - 30 ft. wide
Mitigation

✓ Projects with impacts that exceed certain thresholds may require compensatory mitigation by the USACE.

✓ There are three methods of providing mitigation for a site:
  1) Mitigation Banks
  2) In-Lieu Fee Mitigation
  3) Permittee-Responsible Mitigation
Mitigation Cont.

✓ **Mitigation Banks**
   - A private organization restores, preserves, or enhances an aquatic resource. Permittees purchase credits from this bank to offset the impacts accrued during the course of their project.

✓ **In-Lieu Fee Mitigation**
   - Program generally administered by a government agency or non-profit organization that conducts preservation and restoration of aquatic resources.
     - In Kentucky, the In-Lieu Fee program is administered by the KDFWR and NKU Center for Ecological Restoration.

✓ **Permittee-Responsible Mitigation**
   - Permittee provides mitigation by restoring or preserving an aquatic resource. This can be done near or at the impact site (on-site mitigation), within the watershed, but at a different location or at an alternate location (off-site mitigation).
Example Activities Regulated by 401
Dredge and Fill
Utility Line Crossings
Stream channel relocation
Bank stabilizations
Stream Restoration Activities
Wetland Restoration Projects
Questions?