

Flint Hills Smoke Management Plan

Flint Hills Smoke Management Advisory Committee

Overview & Discussion



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Overview

- Review chapter by chapter
- Highlight small group and EPA issues
- Receive input from Advisory Committee on each chapter
- Receive input from other attendees at end of draft plan review

Chapter 1 - Introduction

- Air Quality Impacts From Flint Hills Burning
 - History
- Flint Hills Ecosystem
 - Topography & geology
 - Climate
 - Animal species & habitats
 - Preservation of tallgrass
 - Historic fire cycles & roll of fire
- *Remaining workgroup issue*
 - *Prairie chickens*



Chapter 2 - Reasons for Having a SMP

■ Health Concerns

- Respiratory
- Cardiovascular

■ National Ambient Air Quality Standards

Particulate matter

- Current 24-hour $PM_{2.5}$ standard = $35 \mu\text{g}/\text{m}^3$

Ozone

- Current 8-hour standard = 0.75 ppm
- Lower standard proposed (0.60 to 0.70 ppm)
- EPA to release lower standard at year-end

Chapter 2 - Reasons for Having a SMP

- EPA Interim Rule Guidance
- Nonattainment Consequences & Costs
 - State Implementation Plans
 - Reasonably Available Control Technology regulations
 - Inspection & maintenance of automobiles
 - Low vapor pressure gasoline
 - Transportation Conformity
 - Potential loss of federal highway funds

Chapter 2 - Reasons for Having a SMP

- Maintaining Flint Hills & Ag Economy
 - Description of intensive early stocking
 - Discussion of weight & financial gains
 - Actual burned acreage vs. perceived burned
 - Patch burn grazing
 - Potential for prairie loss for areas not burned
- *Remaining workgroup issue*
 - *Paragraph on economic benefit in section 2.5*

Chapter 3 - Reducing Downwind Impacts of Flint Hills Burning

■ Need For Burning

- Non-burning alternatives
 - Practicality and cost

■ Fire Management Practices (topic from previous meeting)

- Air quality, timing, transport wind, mixing height, dispersion
- Humidity, fuel moisture, temperature
- Ignition & burn techniques

■ Smoke Plan Pilot Project – Spring 2011

- Greenwood County.....Others?

■ *Remaining workgroup issue*

- EPA recommends climate zone discussion be included*

Chapter 4 - Restrictions on Non-Agricultural Burning

- April of Each Year
- Flint Hills Counties, plus Sedgwick, Wyandotte & Johnson
- Types of Burning Allowed
 - Agricultural burning for prairie & grasslands
 - Conservation reserve program
 - Exemptions could be made for special circumstances or needs
- Types of Burning Banned
 - Land clearing, crop residue, yard waste
- *Remaining workgroup issues*
 - *EPA recommends clarification on burn ban categories*
 - *EPA recommends crop residue should be on April ban list*
 - *Implementation of ban in 2011?*

Chapter 5 - Outreach, Education & Public Notification

■ Outreach

- Predictive modeling
 - Run models daily during burn season
- Formal fire instruction
 - Incorporated into burn schools
- Internet
 - Fire & Smoke Planning Resource website (KSU)
- Broadcast media
 - Daily updates during burn season
- Print
 - Posters, flyers, press releases
- Group presentations
 - Standardized slide show

Chapter 5 - Outreach, Education & Public Notification

■ Audiences & Message Content

- Land Managers
- Agencies
- Regulatory
- Businesses
- Public

■ Education & Outreach

- Agencies & stakeholders that helped develop SMP
- Outreach workgroup will form when SMP finished

■ *Remaining workgroup issue*

- Funding for KSU website*

Chapter 6 - Surveillance and Enforcement

- Surveillance
 - Air monitoring
 - Satellite
 - Post burn season surveys
- Non-Agricultural Burn Ban Enforcement
 - Local emergency managers
 - KDHE district offices
- *No issues raised by workgroup members*

Chapter 7 - Data Collection, Research Needs & Long Term Strategies

- Data Collection
 - Pilot program
- Research Needs
 - Characterize emissions & remote sensing
 - Monitoring studies
 - Timing & frequency
 - Management techniques
 - Health impacts
- Long Term Strategies
 - Modeling
- *Resources for research and modeling are issues*

Chapter 8 - Contingency Measures

- Non-essential April Burn Ban
 - Expand to counties surrounding Flint Hills
- Smoke Plans, Notification, Data Collection
 - Could become mandatory
- Burn Approvals
 - Based on weather & pre-existing conditions
- Time-of-Day Window
 - Start & end times established
- Burn Ban Days
 - Daily burn ban briefing to Governor & Secretary of KDHE
- *Remaining workgroup issue*
 - *EPA -- contingency measure triggers & implementation timeframes*

Next Steps

- Work with small workgroup to make changes from today's meeting
- Post on KDHE website to receive additional stakeholder input
- Make final changes and distribute
- Hold final meeting: December 16, 2010