

**WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) REQUEST FORM**

Date: 4/12/2018 Weekly Agenda Date: 4/17/2018

**ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN:** Mark J. Nahra, County Engineer

**WORDING FOR AGENDA ITEM:**

Review and discuss possible changes to county dust remediation policy

**ACTION REQUIRED:**

- Approve Ordinance
- Approve Resolution
- Approve Motion
- Public Hearing
- Other: Informational
- Attachments

**EXECUTIVE SUMMARY:**

The Secondary Road Department periodically reviews departmental policies with the Board of Supervisors. The Board requested review of dust control policy.

**BACKGROUND:**

The Board of Supervisors received complaints requesting application of dust palliatives to control fugitive dust caused by a nearby farm/ranch operation from an area that is not eligible for dust control under the current county policy. The Board requested a review of the current policy to determine whether changes to the policy are necessary.

**FINANCIAL IMPACT:**

Changes to the dust control policy would have significant impact to the county roadway maintenance budget. Each year, the county expends 100-105% of this budget area, as allowed by code. Increasing the amount of dust control applied by the county may double or triple this budget expenditure.

**IF THERE IS A CONTRACT INVOLVED IN THE AGENDA ITEM, HAS THE CONTRACT BEEN SUBMITTED AT LEAST ONE WEEK PRIOR AND ANSWERED WITH A REVIEW BY THE COUNTY ATTORNEY'S OFFICE?**

Yes  No

**RECOMMENDATION:**

I will share some possible language to deal with situations like those faced by the complainants, offer the board some alternatives, explain the cost of the changes, and their impact on the budget. After reviewing these topics with the board, a revised dust policy can be presented to the board for approval at a later meeting.

**ACTION REQUIRED / PROPOSED MOTION:**

Discussion only, no action proposed for this meeting.

To: Board of Supervisors

From: Mark J. Nahra, Woodbury County Engineer

Date: April 12, 2018

Subject: Dust control policy

**COMMENTS ON PROGRAM AND COMPLAINT**

I spoke with two individuals at Iowa DNR on April 11, 2018. The first stated that Iowa DNR would not force Woodbury County to apply dust control under the circumstances present on Buchanan and 180<sup>th</sup> Street. As is shown on the attached Iowa Administrative Code section, agricultural traffic is noted as normal traffic on rural granular surfaced roads. The county is not liable for fugitive dust generated by that traffic. He then referred me to another individual at the Spencer DNR office that handles normally dust control complaints. Cindy Martin of Iowa DNR stated that she feels that Whiskey Creek Farms is a business and the county should work to get dust control applied when they are using the roads heavily. In the past, she noted that the Peterson's had voluntarily tried to mitigate dust in the past and encouraged us to work with Peterson's for a solution. She felt these efforts should continue and that she would work with the county and Whiskey Creek Farms to assure that effort continues.

I spoke with Dan Peterson of Whiskey Creek Farms on April 11. He was concerned about a dust complaint, surprised there had been a complaint so early in the year. I explained that the complaint was a result of last year's activities and briefly discussed the group that had appeared before the Board of Supervisors. He responded that he and his family farm operation are concerned about the impact of their traffic on the neighbors and on their own operation. He indicated that on days that they utilizing the roads, such as when they are doing silage or manure hauling, that they have a water truck running all day to assist with keeping dust down for the safety of their own truckers and for the safety of the neighbors.

The Iowa Department of Natural Resources (DNR) does not require application of dust palliatives as the only mitigation for dust generation. Hauling water to the road to keep dust down is considered acceptable mitigation according to IDNR and meets all requirements for controlling fugitive dust. We have used water hauling frequently to deal with dust caused by material hauling as part of the Highway 20 construction project and for some county projects in a response to dust complaints. The county does not have to change its policies to accommodate the residents of 180<sup>th</sup> Street and Buchanan Avenue if we work with Peterson farms/Whiskey Creek Acres to mitigate their active use of the roads with water hauled to control dust.

Virtually everyone on a gravel road would like their life to be dust free. Some residents do apply their own dust control annually under our program for residents who do not qualify for county applied dust control.

**CURRENT PROGRAM COST:**

Current cost of regular dust control program, not including detour application is:

S. Ridge Road	1,200'
Glenn Ellen Road	12,200'
140 <sup>th</sup> , Buchanan, 120 <sup>th</sup> , and Barker	27,600'
Southwood Park area	1,000'
Mason Avenue Gravel Pit Haul Route	<u>1,375'</u>
Total treated road length:	43,375'

Total Cost of treatment per year (2 applications): \$73,737.50 (\$0.85/foot)

### **BUDGET IMPACT OF POLICY CHANGE**

The Board could take action to make more areas eligible for county supplied dust control. There are two ways of doing this, one to lower the action level for dust control from 200 vpd to a lower traffic count.

If the board can reduce the action traffic level for the application of dust control, the additional dust control cost would be as follows:

If the board goes to 150 vpd based on Iowa DOT traffic count, extra program cost: \$(to be provided)\*

If the board goes to 100 vpd based on Iowa DOT traffic count, extra program cost: \$(to be provided)\*

\* costs to be calculated and shared with board prior to April 17 board meeting.

The reduction in action level even to 100 vpd Iowa DOT traffic count does not help the people on Buchanan Avenue and 180<sup>th</sup> Street as both roads have Iowa DOT traffic counts that are below that action level. Since the county does have the capability of taking traffic counts, but not the supporting data to convert peak traffic counts to the equivalent of average daily traffic, I would suggest we consider adding language to the policy for providing dust control if there is excessive traffic on a road, as is alleged on Buchanan Avenue and 180<sup>th</sup> Street. This language uses the provisions of the Iowa Administrative Code and Iowa DNR Program Implementation Guidance to determine an action level for dust palliative application

### **PROPOSED LANGUAGE ADDITION TO CURRENT POLICY:**

For areas claiming to be impacted by fugitive dust at levels above normal traffic, the county will conduct traffic counts. If the traffic count exceeds the following levels, the road in question will be added to dust control program for part of the season with consideration for permanent addition to the county provided program:

- 1) Traffic count at or in excess of 300 vpd for five consecutive days during a 7-14-day traffic count with the county owned meters. Subsequent counts will be taken at least two other times during the spring-summer-fall seasons to confirm high traffic count to be added to the regular dust control program until the next Iowa DOT count can be obtained. The later counts must show that the traffic count meets or exceeds the level required for the initial dust control application.
- 2) Traffic count exceeds 30 vehicles per hour for one or more hours per day for five or more days during a 7-14 day traffic count. Subsequent counts will be taken at least two other times during the spring-summer-fall seasons to confirm high traffic count to be added to the regular dust control program until the next Iowa DOT count can be obtained. The later counts must show that the traffic count meets or exceeds the level required for the initial dust control application.

This standard sets a tough bar to get over, but I think fair to other county gravel road homeowners as it ties the need for dust control to the applicable Iowa DNR fugitive dust mitigation standards. Due to the expense of this program and the minimal impact this expense makes to road improvement, I believe a high bar should be set prior to the county expending funds intended for road maintenance and improvement to county roads.

**COMMENTS FROM THE COUNTY ENGINEER**

The residents of this area do not pay enough money in property taxes to cover the cost of providing dust control. Total property taxes collected from 180<sup>th</sup> street and Buchanan Avenue residents for road department:

Taxable valuation of properties on 180<sup>th</sup> and Buchanan\*\*:

\$1,475,854

Secondary Road Levy for FY 2018: \$2.19/thousand

\$3,232.12

Secondary Road Levy for FY 2019: \$0.96/thousand

\$1,416.82

Total cost of dust treatment:

5400 l.f. x \$0,85/foot = \$4,590

Two applications per year           2

Total cost for county supplied dust control:

\$9,180

\*\* Valuation for properties from Woodbury County Treasurer’s Property Tax website.

Total property taxes for secondary road department:

\$1,100,000 for FY 2019

\$2,328,000 for FY 2018

The property taxes collected for the residents in this area do not cover the cost of the dust control requested for their properties. We have maintained low secondary road levies in Woodbury County to benefit property tax payers. The cost of this is that we cannot afford to provide every possible service to rural residents that they may wish to request from the county.

**RECOMMENDATIONS:**

- 1) I do not recommend changes to the current county dust control policy. I recommend that the Board approve the policy as has been in force since before 2009.
- 2) If the Board chooses to make changes to the current policy, I recommend that they adopt the draft language for dust mitigation shared in this memo, adding it to the current policy provisions, including not changing the 200 vpd traffic count level for participation in the current dust control policy.

Attachments: Iowa Administrative Code Fugitive Dust provisions  
Iowa DNR Program implementation guidance for fugitive dust  
Current Woodbury County Dust Control Policy

567 IAC 23.3(2)c. Fugitive dust.

(1) Attainment and unclassified areas. A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizer or limestone.
4. Covering, at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.
6. Reducing the speed of vehicles traveling over on-property surfaces as necessary to minimize the generation of airborne dusts.

IOWA DEPARTMENT OF NATURAL RESOURCES  
ENVIRONMENTAL SERVICES DIVISION

PROGRAM IMPLEMENTATION GUIDANCE

**TOPIC: Procedure for addressing fugitive dust complaints related to construction and maintenance activities on unpaved public roads.**

**Procedure Number:** 3-b-14 (AQ)

**Replaces Number:** None

**Effective Date:** 4/1/2006

**Expiration Date:** 4/1/2011

**Prepared by:** Wayne Gieselman

**Reviewer:** Barbara Lynch

**Approval:** AQ Bureau Chief: Catharine Fitzsimmons *CF* **Date:** 4/5/06  
FS Bureau Chief: Barb Lynch *BAL* **Date:** 4/10/06  
Division Administrator: Wayne Gieselman *WG* **Date:** 4-10-06

**Synopsis of Guidance:** This document outlines the procedures that will be followed by field office staff when addressing complaints regarding fugitive dust from maintenance and construction activities on unpaved public roads.

**Applicable Iowa Code or IAC provisions:** Iowa Code Sec.: 455B.133; IAC Provisions: 567 IAC 23.3(2)"c" (Fugitive dust).

\*\*\*\*\*

**Background:** The department receives many complaints regarding fugitive dust from unpaved public roads, particularly during the peak summer road construction and maintenance period or in relation to transport of road surfacing material from quarries. The department and public highway authorities have struggled for many years to establish a common understanding of what road activities constitute ordinary travel and are exempt from the requirements of the fugitive dust rule and which road activities should be subject to the requirements of the fugitive dust rule. A common understanding of what road activities constitute ordinary travel was established and incorporated into a revised fugitive dust rule, which became effective on October 19, 2005.

**Issue:** Some public highway authorities and legislators have attempted in the past to redefine, through legislation or rule, what constitutes ordinary travel on unpaved public roads. These proposals would have included all types of road construction activities, detours, and the transport of surfacing material for road construction activities as ordinary travel. Defining these activities as ordinary travel would exempt them from the requirements of the fugitive dust rule, thereby eliminating the requirement to control fugitive particulate matter (dust) emissions generated as a result these activities.

The department has determined that unpaved public road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping are not continuous by nature and are normally of a short duration at a specific location. These activities usually do not generate particulate matter in quantities sufficient to be considered a nuisance or threaten public health. The department has historically treated these types of road maintenance activities as ordinary travel.

**Definitions:** For the purposes of this document, the terms below are defined as follows:

“department” means the Iowa Department of Natural Resources.

“local program” means the Polk County Air Quality Division and the Linn County Air Quality Division.

“public highway authority” means any municipal, county, or state government body that is responsible for the maintenance and construction of public roads.

## **Guidance**

**Complaint Guidance:** If the department receives a first time complaint about fugitive dust from an unpaved public road, the department will contact the appropriate public highway authority or local program and request that they investigate the complaint to determine whether the fugitive dust cited by the complainant is the result of road maintenance activities or road construction activities. Road maintenance activities include scarifying (including blading), compacting, and scraping of the road surface (1) to maintain the road surface or (2) in preparation for or during the application of rock to the road surface (a) as part of normal road maintenance activities or (b) to repair the road following a washout. Road maintenance activities also include culvert maintenance or repair, and the application of dust suppressants on unpaved public roads in the vicinity of residences or businesses. Road maintenance activities are considered to be part of ordinary travel and are exempt from the requirements of the fugitive dust rule.

The public highway authority or local program will inform the individual(s) making the complaint of the expected duration of the road maintenance activities in their area and of the times of day when fugitive dust from the road maintenance activities is most likely to impact their location. The public highway authority or local program also will inform the complainant(s) about what measures could be taken by the complainant(s) to minimize exposure to fugitive dust.

Road construction activities include paving or repaving an existing road surface, establishing a new paved or unpaved road, and bridge repairs. Road construction activities are not considered to be ordinary travel and therefore are subject to the provisions of the fugitive dust rule. The department or local program will coordinate with the public highway authority to ensure that the appropriate corrective actions to abate the fugitive dust emissions related to road construction activities are taken.

**Transport of Surfacing Materials:** The transport of road maintenance surfacing material for use in road maintenance activities on unpaved public roads is

considered to be ordinary travel and exempt from the requirements of the fugitive dust rule. This includes transport occurring on any secondary road to or from a road gravel pit, where the primary activity of the gravel pit is providing rock for road maintenance, to the site of the road maintenance activity.

For complaints related to the transport of surfacing materials for road maintenance activities, the public highway authority or local program will inform the individual(s) making the complaint of the expected duration of the transport activities in their area, the times of day when fugitive dust from the transport activities is most likely to impact their location, and what measures can be taken to minimize exposure to fugitive dust.

Transport on roads leading to or from a commercial quarry that provides rock for road construction activities is not considered to be ordinary travel and is subject to the provisions of the fugitive dust rule, even if some of the rock being hauled out of the commercial quarry is used for unpaved road maintenance activities. Any transport of surfacing materials for road construction activities is not considered ordinary travel and is subject to the provisions of the fugitive dust rule.

For complaints related to the transport of surfacing materials for road construction activities, the department or local program will coordinate with the public highway authority to ensure that the appropriate corrective actions to mitigate the fugitive dust emissions related to transport activities are taken.

**Detours:** For road maintenance activities, detours are not established due to the short duration of the maintenance activities. For road construction activities, the public highway authority is not required to post a detour route unless the construction activities will result in a road closure that will exceed 48 hours in duration. The public highway authority is encouraged to use a paved, numbered road system for the marked detour route.

The department or local program will coordinate with the public highway authority to ensure that fugitive dust emissions on the detour route are abated if complaints are received regarding fugitive dust resulting from the increased traffic on the detour route, or the department or local program has knowledge of fugitive dust conditions on the detour route that should be abated.

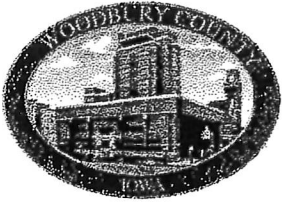
The department or local program may require the public highway authority to abate fugitive dust emissions on public roads that are not part a marked detour route but that experience an increase in traffic volume due to the choice of some drivers to use roads not included in the marked detour. The decision to request that fugitive dust emissions be abated in this instance should be based on a vehicle count. A vehicle count of 30 or more vehicles per hour constitutes sufficient justification for requesting that the public highway authority abate the fugitive dust emissions.

The public highway authority or local program will inform individual(s) filing complaints regarding a posted detour route, or regarding roads that are not part



of a posted detour route but that see an increase in traffic volume due to road construction activities, of the expected duration of the road construction activities in their area and possible measures that they could take to minimize their exposure to fugitive dust. The department or local program will use its enforcement discretion as appropriate in these instances.

**Department Enforcement Discretion:** This document is intended to provide guidance to field office staff to ensure a uniform approach to dealing with complaints related to activities on unpaved public roads and to clarify the fugitive dust rule language. This document does not limit or modify the department's enforcement discretion in regard to complaints related to fugitive dust. If a violation of the rules is determined and the public highway authority is not actively working with the department to take timely and appropriate corrective action, then a letter, which may be a Notice of Violation (NOV), should be sent to the public highway authority formally documenting the complaint and what steps the public highway authority should take to address the problem. If the department continues to receive complaints related to the same road construction project or the department determines that the public highway authority has not implemented the necessary abatement actions, then the department may take additional action, including issuance of a second Notice of Violation (NOV) or an Administrative Order.



# Woodbury County Secondary Roads Department

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PPM #9, 2010

## WOODBURY COUNTY SECONDARY ROAD DEPARTMENT POLICY AND PROCEDURE MEMORANDUM

SUBJECT: DUST CONTROL POLICY

### Purpose

Subdivision development, signed detour traffic, road construction haul road use in the rural area creates additional traffic on gravel surfaced roads which were designed primarily for rural farm access. Fugitive dust draws frequent complaints from residents who live in rural areas. The county receives requests for dust control on roads to meet address higher traffic levels and associated dust generated by that traffic.

The county has developed this policy to address fugitive dust created by traffic in the rural area.

### County Treated Roads - Participation Guidelines

- 1) Woodbury County will place dust control twice per year to gravel roads when the Average Daily Traffic (ADT) exceeds 200 vehicles per day as determined by the Iowa DOT quadrennial traffic counts at county expense. The county will also consider the application of dust control on roads with more than 12 houses per mile if they are adjacent to a dust treated roadway.
- 2) The County will use Calcium or Magnesium Chloride for dust control.
- 3) The first application of dust control material will normally be applied between May 15 and Memorial Day, depending upon weather. The second application will be applied sometime between mid-July and mid-August depending upon road condition and weather.
- 4) Dust treated roads will be bladed and readied for winter after October 1 of each calendar year. Treated roads will all be bladed before winter conditions set in.
- 5) Schedules for application will be determined by the Woodbury County Engineer.

### Resident Treated Roads – Participation Guidelines

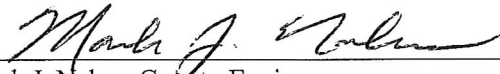
Residents on roads that do not meet traffic requirements for county applied dust control may apply dust control at their own expense. Work in the county right of way must comply with section 318.8 of the Code of Iowa. Residents desiring dust control should contact their dust palliative applicator of choice. The applicator will contact the county and notify the engineer's office of the location for dust treatment and request road

preparation and approval of the site. The county will prepare the roadway and notify the applicator that the roads are ready for spraying.

Dust control applicators may apply calcium or magnesium chloride, lignon sulfonate, or a blend of the two materials for dust mitigation on private dust palliative applications.

#### Detour and Haul Roads

Traffic detoured onto county gravel roads and haul road use connected with highway construction are not normal traffic as defined by Iowa Code and Administrative rules. The county engineer will arrange for the application of dust control palliative on signed detour routes and on designated haul roads. Applications will be 400 feet wide at each residential driveway and a minimum of 300 feet long at each gravel approach to an intersection on a designated haul road or detour route. Cost of dust treatment will be billed to the road authority responsible for the gravel road haul road or detour route designation.



Mark J. Nahra, County Engineer