

Fire Mountain Farm biosolids hearing presentation script

November 18, 2020

Slide 1: Introduction

Hello and thank you for joining us tonight. I've prepared a presentation for you all today that I hope will answer some of your questions by giving a brief overview of what biosolids are, explaining how biosolids permitting works, and then giving a description of the proposal that Fire Mountain Farms has submitted for review.

Slide 2: What are biosolids?

Biosolids are a sustainable resource that contain beneficial nutrients and organic matter that are essential for plant growth and soil health. They are produced from the treatment of domestic wastewater that gets flushed down toilets and drains from households, commercial buildings, and businesses every day.

Biosolids come from domestic sewage produced from personal residences and commercial buildings, essentially any wastewater from humans or household operations that are sent to a treatment facility.

Slide 3: The difference between sewage sludge and biosolids

So what is the difference between sewage sludge and biosolids? These terms are often used interchangeably, but they refer to solids at two different points in the domestic sewage treatment process. Sewage sludge can be untreated or treated solids that have not met the state regulatory standards for land application. These biosolids will either be sent to another facility for further treatment, or if the pollutants are too high they will be sent to a landfill.

Biosolids are treated sewage sludge that have met state regulatory requirements for land application. I will discuss the requirements they have to meet in a few minutes, but first...

Slide 4: Why are biosolids land applied?

The state legislature determined that, "a program shall be established to manage municipal sewage sludge and that the program shall, to the **maximum extent possible**, ensure that municipal sewage sludge is **reused as a beneficial commodity** and is managed in a manner that **minimizes risk to public health and the environment**."

Biosolids are a renewable resource that provides essential plant nutrients when compared to chemical fertilizers. Biosolids can also increase the organic matter in the soil which increases the soil water holding capacity and reduces erosion.

This picture, for example, shows how biosolids can be beneficial to plant growth, with biosolids having been applied to the right side of the field but not the left.

Slide 5: How does Ecology regulate biosolids?

So for some context the Federal rule, which is part of the Clean Water Act, regulates sewage sludge and biosolids that are produced and land applied. This section includes the regulation of pollutant limits, requirements for reducing pathogens and reducing the biosolid attractiveness to vectors like insects and

rodents. Ecology is appointed by the state legislature with the responsibility of managing a Biosolids Program. The State Rule provides the details on how biosolids generators and land appliers must manage their programs to be protective of human and environmental health. It also provides Ecology with the authority to enforce regulatory requirements for municipal sewage sludge. And last, the General Permit for Biosolids Management provides the requirements that biosolids generators and land appliers must abide by to stay in compliance with the state law. When the General Permit is renewed, facilities must apply for coverage under the new permit.

Due to unforeseen circumstances, the issuance of the next General Permit has been delayed until 2021. For this reason, Fire Mountain Farms has requested to enter into an Agreed Order with Ecology to add new sites to their existing coverage that will be managed according to the requirements of the 2015 General Permit for Biosolids Management. The Agreed Order conditions, along with the associated State Environmental Policy Act Determination of Non-significance and application proposal are what we're taking comment on and I'll talk more about these in a minute.

*Federal rule – 40 CFR part 503 of Clean Water Act, State law – 70A.226 formerly 70.95J, State Rule – 173-308 WAC

Slide 6: Biosolids permitting process

So how does the permitting process work? First an applicant, in this case Fire Mountain Farms, submits their initial application. A Regional Biosolids Coordinator will review the application and visit the sites to evaluate if they are appropriate for biosolids land application. Afterwards, the coordinator provides feedback on their proposal. Sometimes several drafts are reviewed before Ecology can effectively evaluate the proposal. During the final review period, members of the solid waste management team determine if additional conditions need to accompany an approval based on the site characteristics and any current or previous concerns about an applicant's practices. If Ecology believes at that point, that it has the ability to effectively regulate the final submitted proposal, a public comment period is started. Which brings us to this current moment. During this public comment period, we want to hear from you all on if we correctly applied current laws, rules, and regulations to this action or if there is additional information about site characteristics that we should further evaluate for this action. Based on the comments received, we will then decide whether to approve the proposal and conditions as is, add additional conditions before issuing an approval or deny the proposal.

Slide 7: What does Ecology regulate?

Ecology regulates the management and beneficial use of biosolids. This includes the people who land apply biosolids, the land where biosolids are to be applied, and the biosolids to be land applied. We regulate pathogen reduction, the reduced attractiveness of the biosolids to vectors like insects and rodents or other scavengers, and regulated pollutant concentrations in the biosolids.

Slide 8: Proposed sites

The specific reason we are here tonight is because Fire Mountain Farms, a land application company, has submitted a proposal to Ecology to add 5 sites in Lewis County to their existing permit coverage. The proposed sites have a series of fields that Fire Mountain Farms is requesting to land apply Class B biosolids on. Based on the information in the proposal documents and observations made during site visits to each location, each site was evaluated to determine if the appropriate information was included to allow Ecology to effectively regulate these sites.

Slide 9: Fire Mountain Farms permit application

They have provided the required documentation to land apply Class B biosolids, which have greater site management restrictions to protect people from pathogen contamination. The details of what occurs at each site can be found in the Site Specific Land Application Plans. Maps also have to be provided to show the location of sites, where field boundaries are, site topography and zoning restrictions. A soil survey is also reviewed to evaluate if there are drainage issues, wetland soils or high groundwater. If biosolids are applied on someone other than the land applier's property, consent from the landowner has to be submitted. Katherine will place the link in the chat box for anyone who is interested in reviewing the individual documents.

Slide 10: Agreed Order

As mentioned previously, since the 2015 General Permit has expired, an approval would be issued through an Agreed Order with Ecology which would add these site to their permit coverage, which continues until the issuance of the next General Permit. An Agreed Order would require them to comply with the requirements of the state rule and 2015 General Permit requirements until final coverage is approved under the next General Permit, with the ability for Ecology to enforce consequences for non-compliance.

As a part of Agreed Order, additional and more stringent conditions were developed based on site conditions and previous issues with management at these locations. These conditions are separated into general conditions that apply to all sites and include conditions like restricting temporary field staging to 6 weeks and requiring that all field staged biosolids are land applied by October 1st. And in the case of odor issues, it outlines the specific conditions that may be required to mitigate offsite odors if they become an issue.

Slide 11: Biosolids application management matrix

To prevent over-application, this Biosolids Applicatino Management Matrix was developed to better manage residual nitrate in the soil. Biosolids are applied at an agronomic rate, which means that the amount of plant available nitrogen applied needs to match the nitrogen needs of the crop. The management strategies here include a reduced application window for the Big Hanaford and Lincoln Creek sites which have fields that are in the 100-year flood plain, only applying when the risk of surface runoff is low, and conducting annual fall soil sampling for residual nitrates. At this point in time, the primary crop on these fields is hay. Guidance from Oregon State University states that residual nitrate concentrations should be at or below 15 parts per million (ppm). If soil samples have higher concentrations, the application rate can be reduced 25-50% or discontinued until the soil returns to under 15 ppm.

To explore additional conditions, both general and specific to each site, review the agreed order conditions online.

Slide 12: Thank you for your time!

I realize this is a large project with many documents to review. If you have any questions over the next couple weeks, please give me a call to further discuss any questions you have about the application material.

Slide 13: Hearing

Includes information on how to submit comments in writing

Slide 14: Closing

Includes information on how to contact us with questions