

NORTHERN PINES FARM  
60 KUFFIES POINT WAY  
VINEYARD HAVEN MA. 02568

To Mv Commission members and staff,

5/26/23

Re: Nitrogen management on farmland.

The land has been in agricultural use since 1978. In that time there have been animals pastured and crops grown. Hay was cut and potatoes were grown during the 80's. Since that time the land has been used for the grazing of livestock.

Beef cattle, a hog farrowing operation, pastured broiler chickens, free range layers, turkeys, goats and sheep.

When growing crops fertilizer was applied to the crops. Since that time, we have not fertilized the pastureland.

Livestock has been grazing on the fields and woody pastures during the grass going months, rotating from one pasture to another.

In the winter the animals are moved into our woody pastures only to protect the grass. The stocking densities are quite low.

Currently, there are 30 adult sheep, with their lambs. They have moved out of winter pasture and begun their rotation on grass. During the winter we feed hay, we move the hay feeding locations from place to place to allow the uneaten hay to spread on the ground where the sheep drop their waste. This waste provides nitrogen to aid the composting of hay which in turn promotes better grass growth.

When selecting our breeds of livestock, we have selected more primitive breeds that can live outside year-round with minimum protection. Therefore, instead of having a livestock barn that needs to be shoveled out and thus creating a manure pile. We use portable shelters that we move as required. Pigs won't defecate in

their shelter if other areas are provided, sheep are pretty clean, and highland cattle rarely go into a shelter, they will stand in the lee of a building if its really blowing cold NW gale.

With our low stocking rates and rotation of animals we feel the waste is spread evenly on grass and other vegetation or woods leaf litter, all of which will use nitrogen.

As far as sheet wash and runoff, our land is in a bowl so that no water runs off the property. We do have a farm pond that receives run off. This pond has a plastic liner so that no leaching occurs.

Our poultry management practices are as follows:

The broiler chickens are grazed on grass on chicken tractors. Figure 1: shows the tractors on the field, they are moved daily, you can see the instant results of their manure on the grass.

Figure 1:



The turkeys are less vulnerable to predators, so they are grazed on the fields with portable fence that allows them to be moved across the field.

The laying hens wander about the farm in true free-range fashion. They do have yards around their houses where they are fed and watered, in the winter they are more apt to stay within these yards. We have applied a layer of hay and wood chips to the yards to absorb the manure and then compost.

We are of the belief that the best farm practices when possible mimic nature. Our livestock live across the land in much the same manner as deer and wild birds do.

I can think of no other practical farm method that we could do that would reduce the amount of nitrogen that leaves our farm and seeps into tashmoo.

In fact, I believe that we have done such a good job at managing the farm that very little nitrogen from our livestock leaves the farm. In addition, I believe our farm actually absorbs some of the naturally occurring nitrogen that falls in the form of rain, unlike, the rain that falls on the roofs of buildings, only to run across the parking lot and down the street into the ponds and harbors. Rain that falls on our farm is absorbed by the grass and vegetation which are all craving nitrogen.

For 40 years the farm has practiced sustainable farming practices to minimize the effects of the farm on the environment. While it is easy to picture the undisturbed woods as a perfect environment, We look at our fields as open space that deer graze, where bunnies thrive to the joy of the birds of prey, where bees find pollen. I look at the Elizabeth islands with their wooded areas and then the expanses of natural fields. We to some degree have created such a habitat with our pastures. We are also sensitive to our demands on the environment and as such constructed a 5000 sq foot solar array that for more than a decade has offset our carbon footprint.

Thank You, The family of Janet and John Packer as the Paradise Land Trust, operators of Northern Pines Farm.

Be well.