

FERGUSON TOWNSHIP
JOINT BOARD OF SUPERVISORS AND TREE COMMISSION WORK SESSION MINUTES
TUESDAY, SEPTEMBER 11, 2018
6:00 PM

I. ATTENDANCE

Board of Supervisors:

Peter Buckland
Steve Miller
Laura Dininni
Sara Carlson, absent
Tony Ricciardi, absent

Tree Commission:

Howard Fescemyer
Darlene Chivers
Marc McDill
Jerry Learn, absent
Mike Jacobson

Township Staff:

David Pribulka
David Modricker
Lance King

Others in attendance were: Dr. Bill Elmendorf, Tree Preservation Ordinance; Marsha Whitehead, resident; and Bill Keough, Planning Commission member

II. CALL TO ORDER

Mr. Buckland called the Joint Board of Supervisor and Tree Commission Work Session to order at 6:00 p.m.

III. INCREASING LIVABILITY AND GREENING THE URBAN LANDSCAPE – DR. MCDILL AND MS. CHIVERS

Dr. McDill and Ms. Chivers provided a presentation to the Board of Supervisors regarding increasing livability in the Township and greening the urban landscape.

The vision of the Tree Commission is to maintain and increase tree coverage and create connected ribbons of green throughout the Township. The objectives include climate mitigation and adaptation, stormwater management and water quality issues, and to improve and maintain the desirability of Ferguson Township as an attractive, healthy place to live. Trees would help each of these objectives by heat reduction for streams, people, residences, and animals related to climate mitigation; create greater infiltration, reduce flooding, and reduce pollution related to stormwater management. Trees improve urban open spaces for wildlife and recreation in Ferguson Township.

Dr. McDill and Ms. Chivers reviewed the tools that can be used to achieve the objectives previously mentioned:

- Land-use planning, including input from the Tree Commission to the Planning Commission
- Initial inventory and GIS to map green infrastructure
- Community involvement
- Strategic Plan
- Revise guidelines and regulations for new developments, both residential and commercial
- Increase tree numbers on walking and biking paths
- Increase connectivity between parks and neighborhoods and paths
- Increase the tree canopy cover
- Replace impervious surfaces with pervious surfaces
- Redesign parking lots and street parking (curb design and using tree wells for street trees)

- Redesign retention basins (rain gardens and bioswales)
- Use green roofs
- Use reflective pavement

Dr. McDill and Ms. Chivers reviewed several guiding principles that work alongside the tools mentioned previously.

There should be greater coordination among the Tree Commission, Planning Commission, Parks and Recreation Committee, and the governing body that establishes construction standards. These commissions and committees should have a mindset that places green infrastructure as a top priority in any kind of planning.

The Tree Commission recommends to the Board of Supervisors that the Township take a more holistic approach in designing developments, bike paths, roads, stormwater management facilities, and parking lots to include more green-design elements. The Township should adopt a tree canopy cover goal (at a neighborhood level) as a sustainability indicator and set explicit goals for increasing the tree canopy cover. Lastly, the Township should review the Subdivision and Land Development Ordinance (SALDO), the Zoning Ordinance, and construction standards to include more green design principles.

IV. TREE PRESERVATION ORDINANCE INTRODUCTION – MR. FESCEMYER

Mr. Fescemyer gave a presentation to the Board of Supervisors as an introduction to further a tree preservation ordinance.

He spoke to the benefits of urban community tree preservation. Urban community tree preservation benefits the environment, economy, and society. The environmental benefits include stormwater management, air filtration and production, and preserves wildlife habitats. Economic benefits include energy savings for residents and businesses, raises property values, and helps retail sales. Societal benefits include community, beautification, and health. He went on to explain that 1,000 trees alone can save \$3,500 in annual stormwater runoff costs. It can also save \$10,000 in annual energy savings. 1 tree equals 90 pounds of carbon dioxide and absorbs 10 pounds of air pollution annually. Shaded business districts increase business revenues by 11% annually. Research shows that apartment buildings with trees had 52% fewer crimes than those without trees. Research also shows that 1 tree within 50 feet of a residential house increases the house value by 9%.

Mr. Fescemyer reviewed possible sections of a tree preservation ordinance. These sections include trees on private land to be developed in the future, preservation of trees on existing residential and commercial properties, and the expansion of tree preservation on Township-owned land.

Mr. Fescemyer stated that there are many ways to preserve trees on private land that may be developed in the future. Restricting the removal of trees greater than a specified diameter, providing appropriate exceptions and incentives to preserve trees, requiring replacement of trees removed, protecting existing trees during development, and specifying proper methods and approval for tree maintenance are several ways to preserve trees on private land. Mr. Fescemyer

went on to explain that these suggestions also work for the preservation of trees on existing residential and commercial properties.

Mr. Fescemyer spoke about the expansion of tree preservation on Township-owned land beyond the existing street tree planting program. He stated that the Township can establish a tree bank or endowment program. The Township could regularly assess and inventory public trees and measure the canopy cover on public and private land. To help expand the tree preservation program, the Township could purchase private, undevelopable tracts of woodland or easements. Another way to continue the expansion is to provide assistance to residents with trees of historical or other significance as well as continue to educate the public about the benefits of trees.

Mr. Fescemyer stated that in summary, trees and associated vegetation provide economic and aesthetic benefits. Protecting trees into the future requires the inclusion of private land in the Township Tree Plan.

There was a brief discussion between the Board members regarding a tree preservation ordinance and the Zoning and Subdivision and Land Development Ordinance (SALDO) update. The Board asked if the consultant working on the ordinance update, Environmental Planning & Design (EPD), could incorporate these ideas into the rewrite so that the Board could provide comments on the updated ordinance.

V. TREE PRESERVATION ORDINANCE REGULATIONS AND EXAMPLES – DR. ELMENDORF

Dr. Elmendorf, Ibberson Chair in Urban and Community Forestry at Penn State University, provided insight on tree preservation ordinances in other municipalities in Pennsylvania. He stated that tree protection ordinances exist in Pennsylvania, especially in large growth areas, such as the Poconos. The idea is to get existing trees on the design radar during land development planning so that there is an idea of what is there and what trees should be saved during development.

Dr. Elmendorf explained that many tree preservation ordinances are placed into the municipality's zoning ordinance; however, some tree preservation ordinances are also incorporated into the municipality's SALDO, natural features, or stormwater ordinances. In the instance of tree preservation on private property, most tree preservation ordinances are placed into the zoning ordinance.

Dr. Elmendorf stated that the purpose behind a tree preservation ordinance is more than just aesthetic benefits. Water quality, stormwater management, increased property value, climate, and energy benefits are important as well and need to be clearly written within the ordinance. Within the tree preservation ordinance, technical and important terms need to be well defined, such as heritage tree, tree protection zone, dripline, and tree risk.

Dr. Elmendorf stated that it is important to decide when the tree preservation is applicable. What permit application would initiate the ordinance? Would it be initiated from an earth disturbance, grading, demolition, the act of building a structure, the SALDO, or the zoning ordinance? He went on to say that on the opposite spectrum, which ordinances are not applicable to the tree preservation ordinance? If a timber harvest is completed on a parcel what would happen if a SALDO application was applied for five months later?

In addition to ordinance applicability, it is important to define what size and species of trees would be protected, as well as the percent of canopy cover. There are different ways to accomplish this in an ordinance. The ordinance could specify that all trees over 6 inches in diameter at breast height (DBH) will be considered on the land development plan and no more than 25% will be removed. Another way to accomplish tree preservation is to describe the percentage of canopy that is allowed to be removed or protected. This can vary throughout different districts and developments in the municipality.

Dr. Elmendorf reviewed tree preservation application requirements to be laid out in the ordinance. Application requirements for permits or approved plans should include the tree inventory of the parcel; a horticulture report; a tree preservation plan; or a tree survey plan showing trees or boundaries of trees to be preserved, removed, and encroached upon by pruning; and a tree protection plan. The ordinance should include who reviews and approves the permits and plans as well as the appeal process. There should also be a post construction inventory and inspection. Dr. Elmendorf explained that tree protection standards can be very extensive if the municipality wishes it to be. The ordinance can include things like a preconstruction meeting, fencing requirements, branch and root pruning standards, and root preservation techniques.

Dr. Elmendorf spoke to credits for tree preservation. He explained that standards are typically created to equate preserved tree diameters or percentages of tree canopies with buffers and landscape credits. The municipality can also consider other credits like parking and stormwater management requirements.

Dr. Elmendorf stated that replacement tree requirements will need to be detailed in the ordinance. First, the species, size, and number of trees that will be provided for replacement of removed trees needs to be defined in the ordinance. There should also be standards for substituting larger trees or other vegetation on a development. Could replacement trees be planted off-site or considered in an in-lieu account? The ordinance should account for protection, bonding, and maintenance of replacement trees and vegetation. Dr. Elmendorf stated that 18 months is usually the minimum amount of time to certify that the replacement trees survive.

Dr. Elmendorf stated that violation and penalties should also be addressed in the ordinance. This section can vary and is dependent on the type of ordinance and permits involved, whether it be zoning, SALDO, or other ordinances. He explained that some municipalities treat these violations as a summary offense. Other municipalities have special and additional penalties for the removal of heritage trees. Some municipalities in other states have clauses for restitution.

The discussion thereafter revolved around the feedback from the Tree Commission regarding the proposed Zoning Ordinance and SALDO revisions. There was also a brief discussion on having a Tree Commission liaison on the Zoning and SALDO update committee as well as the Stormwater Fee Feasibility Study Committee.

Mr. Keough, Ferguson Township Planning Commission member, stated that regarding the tree preservation ordinance, there needs to be definitions on what parts of the Township are urban versus rural.

VI. TREE CANOPY SURVEY – DR. MCDILL

Dr. McDill stated that the Township cannot monitor the tree canopy if it has not been measured. He stated that the best way to measure the tree canopy is to do it neighborhood by neighborhood within the urban areas. Dr. McDill stated that as an example, the Park Hills and Park Forest tree canopy may be declining; however, the Saybrook neighborhood young tree canopy is growing. He went on to explain that the Township needs measurable metrics that produce data. The Township can also reconstruct the tree canopy based on old LIDAR data. Dr. McDill noted that the state will do it for the Township for free, however, it won't be sectioned out neighborhood by neighborhood. The Township may also be able use Google Earth imagery as well as Centre County imagery. Mr. Fescemyer added that the environmental benefits of trees start with measuring the canopy.

VII. ADJOURNMENT

With there being no further discussion, the work session adjourned at 7:50 p.m.

Respectfully submitted,



David Pribulka, Township Manager
For the Board of Supervisors