

**EAST WINDSOR MUNICIPAL UTILITIES AUTHORITY**

**COUNTY OF MERCER**

**STATE OF NEW JERSEY**

**RESOLUTION NO. 2015- 16**

**GREEN GROUNDS AND OUTSIDE FACILITY MAINTENANCE PROGRAM**

WHEREAS, the East Windsor Municipal Utilities Authority owns and operates substantial grounds that are designated for our Water and Wastewater facilities; and

WHEREAS, it is the desire of the East Windsor Municipal Utilities Authority to upkeep its facilities; and

WHEREAS, the East Windsor Municipal Utilities Authority desires that such upkeep and maintenance be conducted in an environmentally sensitive manner, to promote the health and safety of the town's residents and environment; and

WHEREAS, the East Windsor Municipal Utilities Authority is committed to protecting the environment, and to finding ways to use our most precious resource wisely; and

WHEREAS, the East Windsor Municipal Utilities Authority is committed to conserving its water in the most sustainable way and leading by example so that others may follow; and

WHEREAS, the East Windsor Municipal Utilities Authority provides water and wastewater services to our customers, we also work to prevent pollution, promote sustainability, and enhance the natural environment; and

WHEREAS, the East Windsor Municipal Utilities Authority has a consistent history of complying with, and in many cases surpassing, the standards set by environmental laws and regulations; and

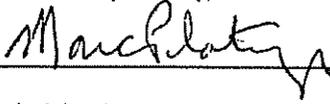
WHEREAS, this is the foundation on which East Windsor Municipal Utilities Authority builds its environmental performance, and strives to not just meet, but exceed the environmental expectations of our ratepayers and establish new benchmarks by which others in our industry may be measured; and

Whereas, the East Windsor Municipal Utilities Authority's commitment to the environment extends beyond the quality of our water into the heart of who we are. We are stewards of the community in which we serve, and we are proud of the role we play in protecting their surroundings; and

NOW THEREFORE, BE IT RESOLVED BY THE EAST WINDSOR MUNICIPAL UTILITIES AUTHORITY BOARD, COUNTY OF MERCER, STATE OF NEW JERSEY that the attached Green Grounds and Outside Maintenance Facility Maintenance Program is officially adopted.

CERTIFICATION

I, Marc ~~A~~ Platizky, do hereby certify that foregoing is a true copy of a resolution adopted by the East Windsor Municipal Utilities Authority at a meeting held on the 21<sup>st</sup> day of May, 2015.

  
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Marc ~~A~~ Platizky, Secretary

## **East Windsor Municipal Utilities Authority**

### **GENERAL MAINTENANCE GUIDELINES and CRITERIA**

#### **OBJECTIVE:**

1. Maintain clean and safe outdoor facilities.
2. Incorporate safety guidelines and a monthly survey program.
3. Provide areas of turf to prevent erosion.
4. Utilize best management practices to reduce chemicals and fertilizers.
5. Integrate organic products to establish healthy turf.
6. Use low water and/or drought resistant plants

#### **I. Administration Building, Water/Wastewater Treatment Facilities and Pump Stations**

##### **A. Turf (Lawns)**

1. Turf has a healthy dense stand of grass and coverage is no less than 95% of area.
2. Turf is mowed at the appropriate height for the type of grass used, the time of the season, and the type use.
3. Turf is free of any litter or debris
4. The Turf has a uniform surface free of holes and trip hazards.
5. Turf is well drained with no standing water.
6. Turf has proper soil consistency for intended usage.
7. Turf is free of weeds and crab grass.
8. Turf is free of rocks, dirt clods, and debris

##### **B. Fencing**

1. Fencing material is properly secured to support rails.
2. Support rails are properly connected and straight.
3. Fencing is free of holes and protrusions.
4. Gates and latches are operational.

##### **C. Restrooms**

1. Restrooms are clean, sanitary, and properly stocked with paper products.
2. Lights and ventilation systems are operational.
3. Toilets, water faucets, stall doors, and hand air dryers are operational.
4. Restroom doors are properly marked according to gender.
5. Restrooms have clean trash receptacles.
6. Restroom doors and locks are operational.

#### **II. Administration Building, Water/Wastewater Treatment Facilities and Pump Stations: General Guidelines**

##### **A. Grounds**

1. Grounds are mowed and trimmed.
2. Facilities are free of litter, debris, and hazards.

3. Parking lots are clean

B. Signage

1. East Windsor MUA identification signs are secure and properly installed in a noticeable location.
2. Handicap parking signs are secure, visible, and to code.
3. Restroom signs are secure and visible.
4. Signs are clean, painted, and free of protrusions.

C. Ornamental Plants

1. Plants are healthy.
2. Plant beds are free of litter, debris, and weeds.
3. Plant selection is appropriate for season and area usage.
4. Native plants and plants that require minimum watering are to be used.

D. Walkways

1. Walkways have a uniform surface and are level with the ground and free of trip hazards.
2. Walkways are free of litter and debris.
3. Walkways meet the Americans with Disabilities Act requirements.
4. Walkways have unobstructed accessibility, i.e. free from low and protruding limbs, guide wires, etc.
5. Walkways are neatly edged.
6. Walkways are clear of weeds and grass growth in cracks and expansion joints.

E. Trash Receptacles

1. Receptacles are clean and secure.
2. Concrete receptacles are intact and free of cracks or damage.
3. Roll-off containers and dumpsters are screened and placed in less intrusive areas.
4. Area around trash receptacles is clean and free of trash and debris.
5. Area around roll-off containers and dumpsters is clean and free of trash and debris.

F. Chain Link Fencing

1. Fencing material is galvanized chain link and is the appropriate gauge wire for specified use.
2. Hardware is intact.
3. Fences are properly installed and anchored.
4. Support rails are properly connected and straight.
5. Bolts or screws are flush with the surface with no exposed sharp points.
6. Fencing is free of holes and protrusions.

G. Wood Fencing and Guardrail

1. Fences are intact, structurally sound, and free of deterioration.
2. Nails, bolts, or screws are flush with the surface with no exposed sharp points.
3. Fences have no excessive cracks or splintering.

#### H. Steel Fencing

1. Fencing material is steel and coated with durable epoxy paint.
2. Hardware is intact.
3. Fences are properly installed and anchored.
4. Support rails are properly connected and straight.

#### I. Irrigation (Grass and Shrub Bed Areas)

1. Use of Rain Gardens and/or rain barrels for watering is the preferred method.
2. Use of natural drainage patterns, site grading and/or berms to channel rainwater on to planted areas.
3. Install swales and berms in areas with high storm water runoff to prevent erosion.

#### J. Lights: Security and Exterior Facility Lights

1. 90% of security and facility lights are operational and use high efficiency LED when possible.
2. No electrical conducting wires are exposed.
3. Lights comply with current building codes.
4. Electrical components are operational, properly installed, and secured.

#### K. General Mowing Guidelines

1. High use areas – Mowed every 5 – 10 days depending on seasonal requirements.
2. Low use areas – Mowed every 20 – 30 days.

**Note:** Mowing should take place on a weekly or Bi - weekly schedule for maintaining proper turf height and for debris pick-up and monitoring purposes. Each site requires different levels of attention specific to the facility needs. Mowing should be maintained at a 2" minimum height to avoid excessive desiccation and heat build-up. Weekly visits are the perfect opportunity for a facilities check-up. For example, the East Windsor MUA employee can check for fence damage, walkway hazards, or any other potential safety issue. If mowing is not required during mid-summer visits, the East Windsor MUA employee can address maintenance issues or check for hazardous tree limbs. Watering of the shrubs can also be performed at this time.

#### L. IPM Implementation

1. Plant and replant indigenous trees and shrubs to increase survival rates.
2. Utilize information obtained from soil tests to minimize fertilizations and chemical use.
3. Substitute compost and leaf mulch in shrub and flower beds to reduce fertilizer use.
4. Incorporate a pruning program for safety and plant vigor.
5. Use grass-cycling to reduce fertilizer applications.
6. Mulch all flower, shrub, and tree areas to reduce weed growth, conserve moisture, and possible reduce erosion and run-off.
7. Overseed turf areas periodically with fescues to incorporate drought resistant/wear resistant grass varieties.
8. Implement an organic turf care program

5. Bolts or screws are flush with the surface with no exposed sharp points.
6. Fencing is free of holes, protrusions and graffiti.

#### M. Fertilization Program

1. High use areas – Fertilize every six weeks starting in mid-April to early-September to ensure and maintain turf vigor during the spring and summer months, which are when the most use occurs. One late season application should be applied to promote root growth during fall/winter months.

**Note:** While this fertilization application schedules may seem excessive compared to residential turf care programs, high use turf areas need the extra applications to bounce back from overuse and continue to grow so bare areas do not develop. This is why implementing an organic fertilization program will be the best approach. The use of compost in plant beds is highly acceptable. The use of Urea type fertilizers is not acceptable. These types of fertilizers are high in ammonia and phosphates which are hazardous to our water ways.

2. Low use areas – Two fertilizations (May 1/October 1) per year to maintain top/root growth and establish existing turf for erosion control.
3. Shrub and Flower Areas – Fertilization should take place in mid-March and in mid-September to promote vigor, which will help fight off disease and insect problems.

**Note:** Organic fertilizers can provide the general turf areas with adequate nutrients to maintain vigor and growth. These fertilizers provide natural slow-release and temperature released nutrients that are safer for the community. If applied at proper rates, these fertilizers can start to rebuild the worn-out turf areas while rebuilding the soil. There are also some organic fertilizers that are low in phosphorous, which are better for turf around the Lakes and tributaries. Weeds will need to be addressed when the fertilization program starts, but with minor spot treatment weeds can be maintained at minimum acceptable levels.



## TOWNSHIP OF EAST WINDSOR

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### East Windsor Township Environmental Commission Grounds Maintenance Policy

June 2015

SUSTAINABLE JERSEY requirement: "Submit a copy of the adopted Green Grounds and Maintenance policy that incorporates elements of the related Sustainable Jersey actions (Efficient Landscape Design, Minimize Water Consumption, Recycled Materials and Composting, Integrated Pest Management). Submit documentation that the policy is currently being implemented."

The Township of East Windsor Environmental Commission undertook a review of the Township Grounds Maintenance Program in 2015. The Township currently maintains properties with both staff and contracted crews. The result of the review was a combination of confirming that many of the current practices should be continued and that some procedures should be modified. The Commission helped develop an Integrated Pest Management (IPM) policy and implementing Township Council Resolution pledging to avoid or limit the use of any chemicals near playgrounds. The IPM policy is provided under a separate action item.

The following reflects the policy that was articulated and presented by the Township staff during this review to reflect the Township Grounds Maintenance Practices Policy. In large part these policies are a result of limited budgets and the need for be frugal with maintenance expenditures, but these policies also promote an environmentally sound and sustainable approach. The Township Public Works Department adopted these grounds maintenance policies. The Township Public Works staff was informed and trained on the details of these policies. Maintenance practices were modified to reflect this policy in 2015.

#### PLANT SELECTIONS (Efficient Landscape Design)

- The Township employs a Landscape Architect as needed. Amongst the duties of this position are review of all planting operations – public and private – to review and promote the policy of planting predominately indigenous species and avoiding exotic invasives.
- The Township code for landscape development has long established that it is preferable to plant native or indigenous species. Such species typically require less maintenance and are better adapted to climate and other natural factors in the area. The introduction of exotic invasive plant species is a significant problem in the community and promotion of these standards will help slow or reverse the frequency of exotic species infestation and allow native species to thrive and reproduce. Thus, the Township policy is to plant native or indigenous species for all public funding projects to the extent practical and sensible.
- The Township street tree program promotes a mix of mostly native species avoiding the planting of monocultures. Street trees are planted in formal patterns but individual species are limited to groups of approximately 25 but not to exceed 50.
- The planting of exotic plant species in close proximity to any Greenbelt or Reforestation landscapes is to be avoided.



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### PLANTING OPERATIONS

- Proper planting operations are the first step in developing a healthy, long living, low maintenance cost landscape. The Township code establishing planting details for the installation of new plantings. In particular it is important to set new plantings at the proper height and to avoid excessive mulch at the base of trees. The Township policy is to follow the Township code planting details and specifications for all new landscape operations.

### PRUNING

- Pruning is a critical maintenance task to promote healthy, safe of long term growth of landscape plantings. The pruning techniques developed by the NJ Forest Service are the most up to date and appropriate specifications for proper pruning. These standards are to be applied to all Township maintenance efforts and the Township staff shall be trained on these techniques on an annual basis.

### LAWN MAINTENANCE

- The Township has established three levels of lawn maintenance – manicured – transition – reforestation.

#### MANICURED LAWNS

- Manicured Lawns are areas that are in constant contact with persons and are highly visible. They include parks, fields, areas around buildings and parking lots and areas along paths or roads.
- Manicured Lawns are maintained at a 3” – 3.5” height to promote the healthy growth of turfgrasses. All mowing equipment must be set with the proper height and all blades should be kept sharp. Grass clippings are not to be collected but shall be mulched into the turf.
- All walks and pavements in manicured lawn areas shall be edged on a regular basis.
- Manicured lawn areas should be mowed when the grass reaches a height of 4” or every 10 days during the growing season.

#### REFORESTATION

- Reforestation areas are portions of open space and storm water management basins that are set aside for conservation and preservation purposes. These areas are maintained with a very light hand to promote the growth of native plants into a climax forest. This is the primary level of landscape to be established unless use or aesthetics dictate manicured or transition maintenance.
- The only intervention in reforestation areas shall be to remove or rectify conditions or plantings that present a health, safety or environmental concern. Dead trees shall be modified to diminish the potential for damage or injury and the remaining wood shall be left for compost of animal habitat. Leaves shall remain in these areas as natural compost. Noxious weeds and exotic invasives shall be removed from these areas as appropriate.



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### TRANSITION

- Transition landscape is the area between reforestation landscape and manicured landscape. These areas shall be maintained at a height between 5” and 10”. Mowing shall occur once or twice a year to mow grasses that reach 10” height down to 5” height. Grass clippings are not to be collected.
- Transition landscape frequently occur in storm water detention basins along the edge of structures and channels to control the growth of woody plants and enable access and proper drainage.

### FERTILIZER AND LIME

- Fertilizers shall only be applied in manicured landscape areas based upon the specific recommendations of soil test results. All manicured lawn areas shall be tested on an annual basis to determine if chemical deficiencies are present in the soil. Based upon the results of the soil testing for each area appropriate levels of fertilizer and lime shall be applied in stages during the growing season. The Township IPM policy shall be reviewed and followed for fertilizer and lime evaluation and application.

### PESTICIDES AND HERBICIDES

- The Township IPM policy shall be reviewed and followed for the proper procedures to evaluate and apply pesticides and herbicides. Such applications shall only occur in manicured landscape areas – never in transition or reforestation areas.

### WATERING / IRRIGATION

- Only recreation playing fields are irrigated via automatic systems. All other landscapes are only watered by hand watering to establish the planting or in response to observation of drought stress.
- Automatic irrigation systems must include rain sensors to avoid excess or redundant watering.
- Irrigation systems shall only be connected to wells not public water systems.
- Irrigation systems must be regularly monitored and all failures or leaks are repaired immediately.
- Watering cycles on irrigation systems shall be limited to the minimum necessary to maintain the turfgrass in a functional state for the recreation use.

### COMPOSTING / RECYCLING

- All organic landscape waste is recycled as compost in natural reforestation areas or collected and delivered to a local composting facility for re-use as garden soil.



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Please note that the current policy does not specifically address the recycling of non-organic materials. However, materials such as concrete and asphalt are recycled to the extent practical and safe, and other materials are re-used to the extent practical and safe. Safety is a significant factor in the re-use of any material that may come into contact by the public due to exposure to liability. Other waste from construction and landscape operations are sent to recycling facilities when applicable to limit addition of these materials to the refuse stream.

END.