Street Sweeping Municipal Survey Results

10/2/202

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Charlotte-Mecklenburg Storm Water Services
Background

- Research shows sweeping to be a cost-effective surface water quality BMP
- City of Charlotte pilot study confirmed cost-effectiveness of practice
- How does Charlotte’s program compare to other municipalities?
- Should we be doing more?
Municipal Survey

Municipalities were selected that satisfied at least one of the following criteria

- Phase I communities in NC
- Cities of comparable population nationwide
- Cities nationwide with well regarded sweeping programs

1. Charlotte
2. Washington, DC
3. Fort Worth
4. Minneapolis
5. Durham
6. Greensboro
7. Raleigh
8. Austin
9. El Paso
10. Seattle
11. Norfolk
12. Columbus
13. San Antonio
14. Nashville
Questions asked

1. # sweepers?
2. Types of sweepers?
3. Annual Operating Costs?
4. Total cost/yr with equipment?
5. Sweeping frequency?
6. Parking rules?
7. Fall sweeping?
8. State roads swept?
9. Miles swept/yr?
10. Curb miles maintained?
11. How often municipal lots swept?
12. Do municipal depts help pay?
13. Why do you sweep?
14. Funding source?
15. SOPs for decanting water?
16. How did you get Council support?
17. What data is collected?
2. **Types of Sweepers**: Lots of variability – broom, vacuum, regenerative

4. **Total cost/yr with equipment**: Low # of responses, high variability (depended on how many sweepers purchased in given year)

5. **Sweeping frequency**: Highly variable depending on subarea

6. **Parking rules**: Only 3 responded that they have “no parking” signs in certain areas and enforce

7. **Fall sweeping**
   - DC reassigns all sweepers to do leaf duty in the fall and winter
   - Greensboro assigns most sweepers to loose leaf program
   - Seattle and Norfolk mention higher debris in general in the fall, resulting in more overtime, more operators, or reduced frequency
   - Several do not modify collection in the fall
8. **State roads swept**
   - State takes care of it (5): Charlotte, DC, El Paso, Fort Worth, Austin
   - Municipality sweeps some state roads (6): Minneapolis, Durham, Greensboro, Raleigh, Seattle, Norfolk

9. **Miles swept/yr** – “miles maintained” seemed better metric

11. **How often municipal lots swept?**
   - Minneapolis & Raleigh do not sweep municipal lots
   - Others sweep some or by request
12. Do other municipal departments help pay — none answered “yes”

13. Why do you sweep — majority (at least 9 or 69%) mentioned water quality, NPDES permit, TMDLs, etc. (3 didn’t answer)

14. Funding — 9 of 13 (69%) use Storm Water funds (CLT not included)
   - Other funding sources
     - General fund
     - Garbage collection fee
     - Separate Environmental fee or Clean Community fee
     - Combination of sources
15. SOPs for decanting water
   - 3 said sweepers are washed or leachate discharged to sanitary sewers
   - Most said sweeping is done in dry conditions and not an issue

16. How did you get Council support
   - Most said sweeping was in place before they began working there
   - Seattle: Showing that sweeping provides the highest value for the money (data on copper removal)

17. What data is collected
   - Most collect basic data on tons of debris removed, miles swept, miles driven, etc.
   - Seattle: sweepers equipped with automatic vehicle location and onboard scales, samples collected and analyzed every 2 wks
Population comparisons

- Norfolk
- Durham
- Greensboro
- Minneapolis
- Raleigh
- Nashville
- El Paso
- D.C.
- Seattle
- Charlotte
- Fort Worth
- Columbus
- Austin
- San Antonio
Current Funding
Operational cost/yr/mile maintained

El Paso | Charlotte | Seattle | Greensboro | Norfolk | San Antonio | Durham | D.C.
--- | --- | --- | --- | --- | --- | --- | ---
Annual Operating Costs | $625,562 | $1,308,751 | $585,000 | $1,050,000 | $1,721,499 | $4,339,838 | $861,025 | $6,000,000
# curb miles responsible for | 8,000 | 8,500 | 2,580 | 3,000 | 4,400 | 8,350 | 811 | 2,200
# Current Funding
Operational cost/yr/capita

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<tr>
<th>City</th>
<th>Annual Operating Costs</th>
<th>Population size</th>
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<tr>
<td>Seattle</td>
<td>$585,000</td>
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Next Steps?

- Charlotte developing proposal for increased sweeping for water quality
Questions?

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