

Municipal Stormwater Operations and Maintenance South Burlington, Vermont

February 27, 2020

Presentation by:
Tom DiPietro, Deputy Director
South Burlington Department of Public Works

Presentation Overview

- Equipment Used in Stormwater O & M
- Maintenance of:
 - Stormwater Conveyance Infrastructure
 - Stormwater Treatment Infrastructure
 - Roads
- Q&A

Equipment Used in Stormwater O&M

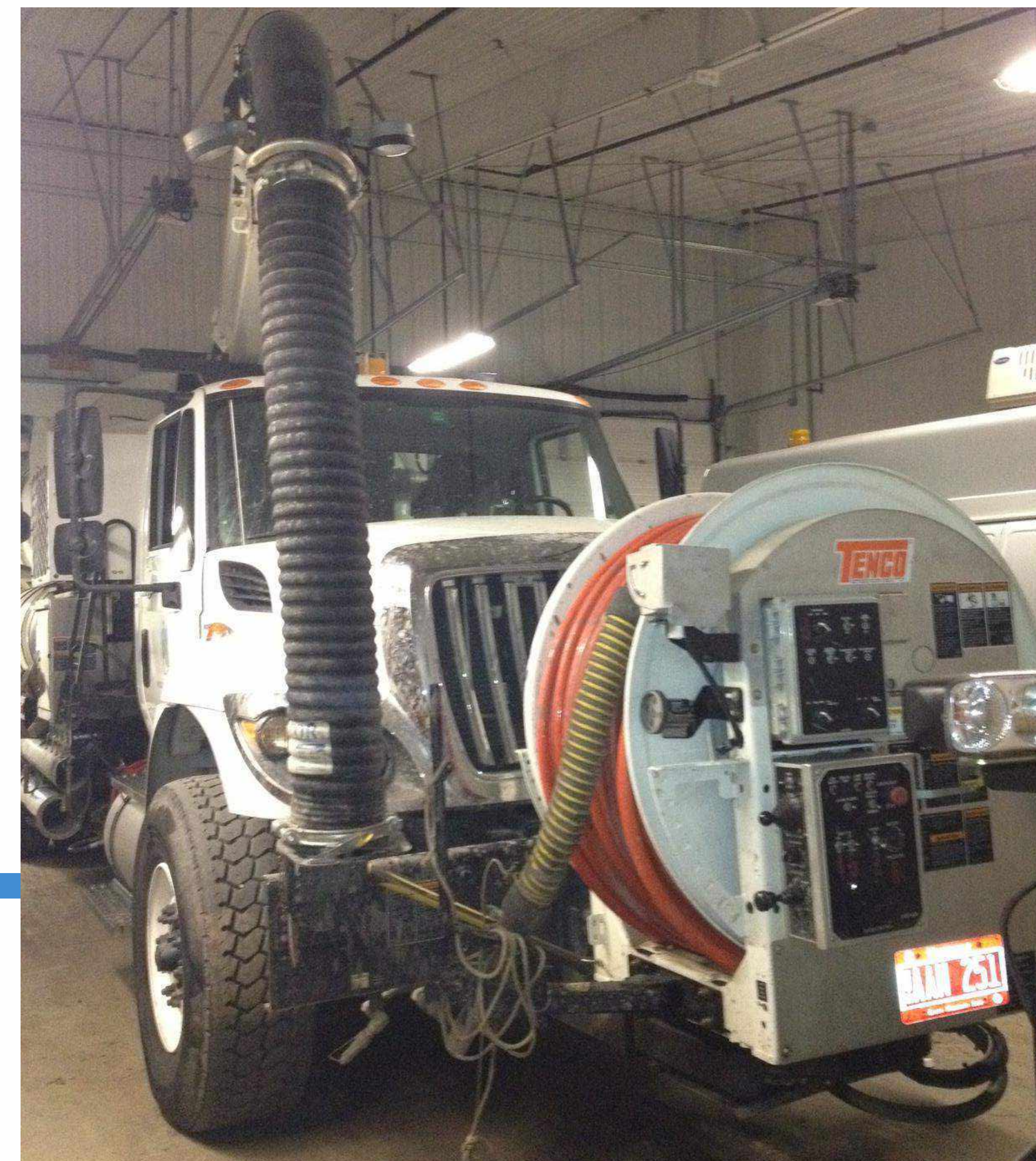
- Vacuum Truck
- Street Sweeper
- Backhoe / Excavator
- Dump Trucks
- Trench Box
- Portable Pumps
- Hydroseeder
- Mowers & Weed Whackers
- Pipe Camera
- Inspection Forms
- Assorted Hand Tools

Equipment Review



There are different types of street sweepers:

- Mechanical
- Vacuum Assisted
- Regenerative Air Sweepers



Equipment Review



Equipment Review



Equipment Review

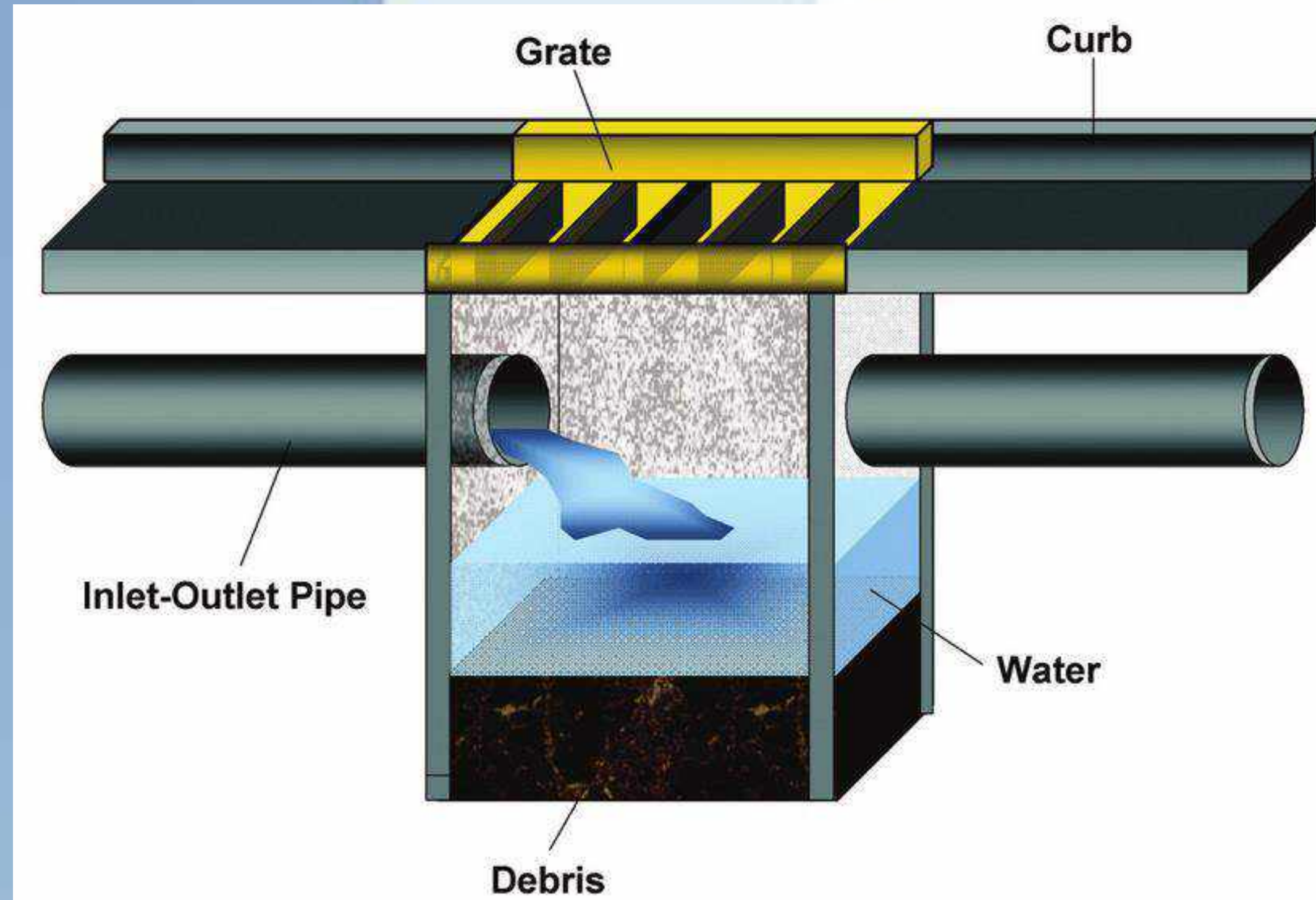


Maintaining Conveyance Infrastructure

- Stormwater Pipes
- Storm Drains
- Culverts
- Swales
- Stone lined ditches
- Pump Stations



Pipes, Storm Drains & Culverts



<i>Vacuum Truck</i>	<i>Dump Truck</i>	<i>Hydroseeder</i>	<i>Inspection Form</i>
<i>Street Sweeper</i>	<i>Trench Box</i>	<i>Mower / Weed Whacker</i>	<i>Hand Tools</i>
<i>Backhoe / Excavator</i>	<i>Portable Pumps</i>	<i>Pipe Camera</i>	<i>Maintenance Staff</i>

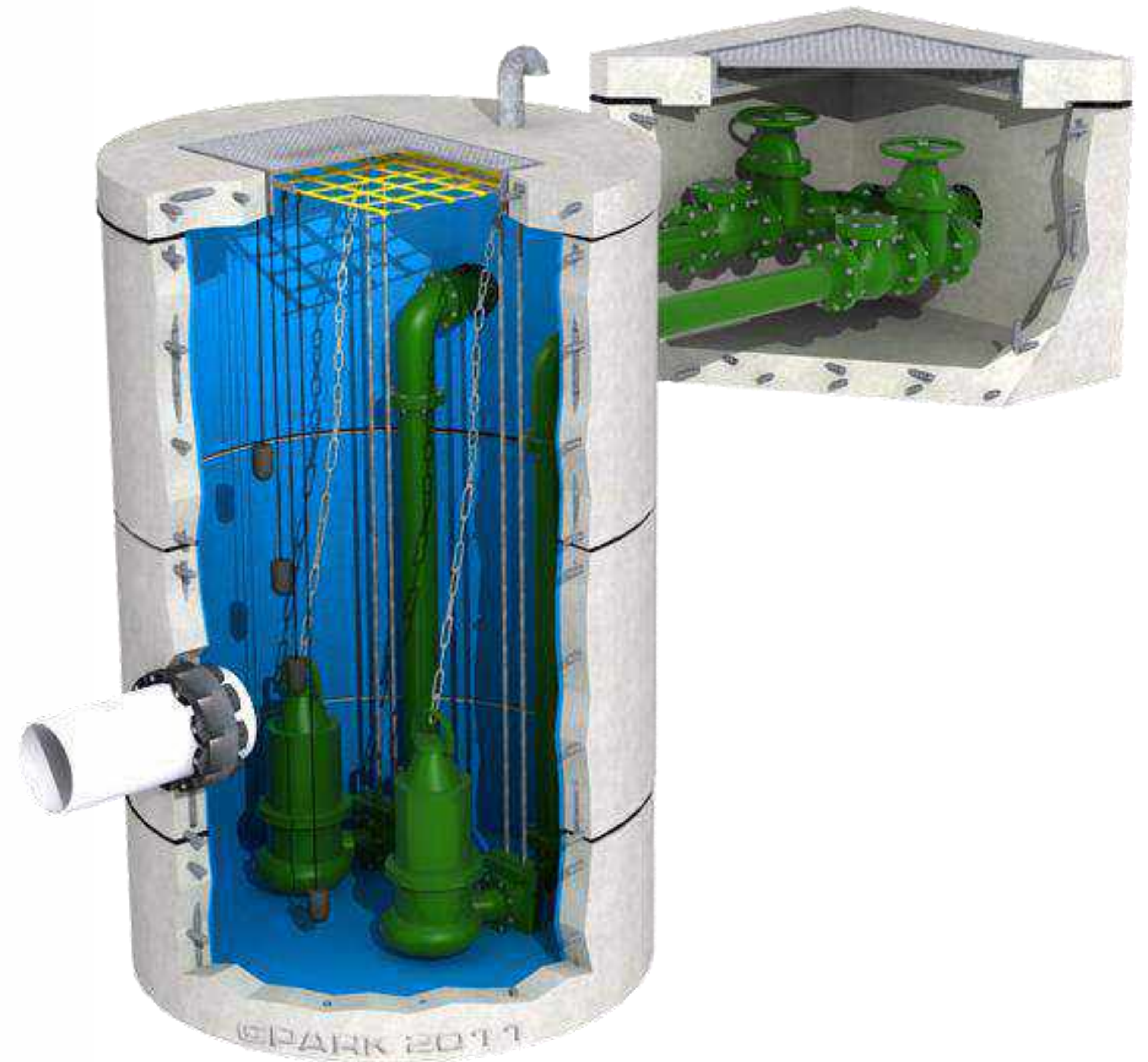
Grass Swales & Stone Lined Ditches



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Stormwater Pump Stations

- Stormwater isn't typically pumped.
- Pump stations require regular inspection, maintenance, and cleaning.



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<i>Backhoe / Excavator</i>	<i>Portable Pumps</i>	<i>Pipe Camera</i>	<i>Maintenance Staff</i>

Maintaining Treatment Infrastructure

- Bioretention (a.k.a. Rain Gardens)
- Treatment Wetlands
- Wet Ponds
- Underground Tanks/Vaults for Storage and/or Infiltration
- Permeable Pavement
- Hydrodynamic Swirl Separators



Bioretention / Rain Gardens & Treatment Wetlands



<i>Vacuum Truck</i>	<i>Dump Truck</i>	<i>Hydroseeder</i>	<i>Inspection Form</i>
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Plants and Maintenance



Stormwater Treatment and Landscaping



Wet Ponds



<i>Vacuum Truck</i>	<i>Dump Truck</i>	<i>Hydroseeder</i>	<i>Inspection Form</i>
<i>Street Sweeper</i>	<i>Trench Box</i>	<i>Mower / Weed Whacker</i>	<i>Hand Tools</i>
<i>Backhoe / Excavator</i>	<i>Portable Pumps</i>	<i>Pipe Camera</i>	<i>Maintenance Staff</i>

Underground Tanks for Storage and/or Infiltration



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Permeable Pavement



<i>Vacuum Truck</i>	<i>Dump Truck</i>	<i>Hydroseeder</i>	<i>Inspection Form</i>
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Hydrodynamic Swirl Separators



<i>Vacuum Truck</i>	<i>Dump Truck</i>	<i>Hydroseeder</i>	<i>Inspection Form</i>
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Stormwater Related Road Maintenance

- Street Sweeping
- Plowed Snow
- De-Icing



Street Sweeping



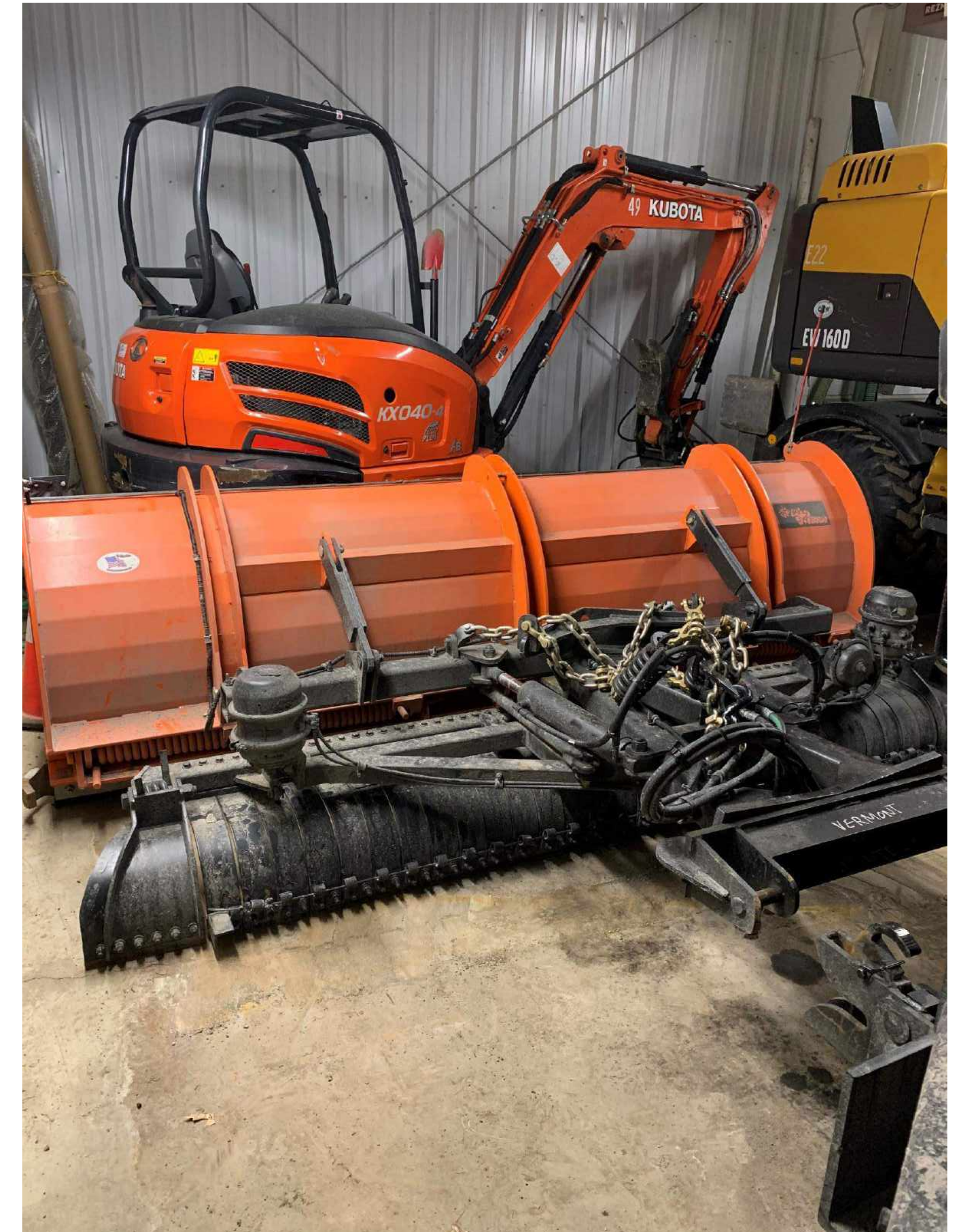
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Plowed Snow



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De-Icing



<i>Vacuum Truck</i>	<i>Dump Truck</i>	<i>Hydroseeder</i>	<i>Inspection Form</i>
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Questions

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