

City of Portsmouth



LED Streetlights (Light Emitting Diode)

Presentation to City Council

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City of Portsmouth
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LED Streetlights

- Current Lighting Technology and Cost
- Savings by Converting to LED Equipment
- Benefits of LED lighting

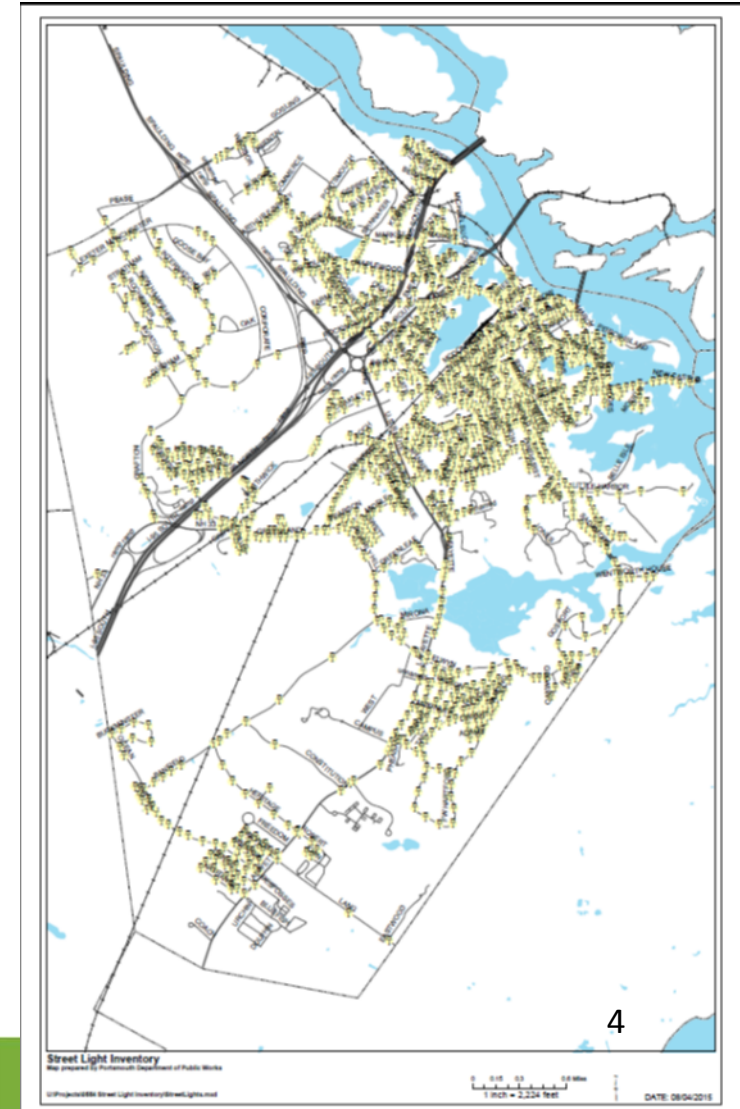


Portsmouth's Current Streetlights



Portsmouth's Current Streetlights

- 1,687 total streetlights in Portsmouth
- Audit completed of streetlight inventory
- All High Pressure Sodium (HPS) lights
- Mostly 50 Watt bulbs



Portsmouth's Current Streetlights

- How Kilowatt Hours (kWh) are calculated

$$\frac{\text{Watts x Time}}{1000}$$

- Portsmouth's HPS streetlights annually consume 817,794 kWh
 - 500 tons of CO2 emissions
- \$272,513 annual cost to City



LED Streetlight Solution

- LED streetlight equipment uses less than half the power to produce light
- Full LED conversion will reduce our annual kWh consumption and equipment costs
 - LED streetlights will annually consume 325,441 kWh
 - 200 tons of CO2 emissions
 - \$150,265 annual cost to operate



LED Streetlight Solution

- Annual savings by converting HPS light equipment to LED light equipment:
 - 492,353 kWh of energy consumption reduced
 - 300 tons of CO2 emissions prevented
 - \$122,248 savings from reduced electricity rates



LED Streetlight Solution

- Environmental Benefits
- Lower Energy Cost Benefits
- Improved quality of light
 - More Accurate Color Rendering
 - Pedestrian Safety
 - Night sky compliant – reduced light pollution



LED Streetlights

The future is bright

