Section 1
TN Loading has increased by 10,636% from 2001-2016.
Irrigation input was the component that saw the greatest increase in loading from 2001-2016 (+68,000,000%)

Section 2
Stormwater Runoff is the greatest contributor to TN in Phillippi Creek, contributing 59% of the total load.

Section 3
Phillippi Creek is a major TN contributor to the Roberts Bay watershed.

Phillippi Creek Total Nitrogen Pollutant Loading Trend Increase 10636% 2001 to 2016

Components of the Trend

<table>
<thead>
<tr>
<th>Component</th>
<th>Increase</th>
<th>2001 to 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater Runoff</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Baseflow</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Septic Systems</td>
<td>4552%</td>
<td></td>
</tr>
<tr>
<td>Point Source</td>
<td>Cannot calculate</td>
<td>2001 to 2016</td>
</tr>
<tr>
<td>Irrigation</td>
<td>68557376%</td>
<td>2001 to 2016</td>
</tr>
<tr>
<td>Atmospheric Deposition</td>
<td>Not Modeled</td>
<td>2001 to 2016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Runoff</th>
<th>Baseflow</th>
<th>Septic</th>
<th>Point Source</th>
<th>Irrigation</th>
<th>Atmospheric</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>2680.90</td>
<td>166949.04</td>
<td>58768.30</td>
<td>727.56</td>
<td>0.00</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>2006</td>
<td>338969.96</td>
<td>169399.75</td>
<td>60356.47</td>
<td>72956.99</td>
<td>15567.86</td>
<td>20688.89</td>
<td>0.00</td>
</tr>
<tr>
<td>2011</td>
<td>74100.05</td>
<td>0.00</td>
<td>0.00</td>
<td>42952.83</td>
<td>6116.96</td>
<td>25030.26</td>
<td>0.00</td>
</tr>
<tr>
<td>2016</td>
<td>287826.23</td>
<td>169833.27</td>
<td>60399.65</td>
<td>33845.92</td>
<td>2567.67</td>
<td>21179.71</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Units are pounds per year and modeled using a typical rainfall year.
Jones Edmunds and Associates conducted this modeling for Sarasota County in 2017.
Modeling was conducted only for the parts of basins located within Sarasota County.
Pollutant loading from Atmospheric Deposition (wet and dry) was conducted only for bays.

Section 2
2016 Pollutant loading is influenced by some sources more than others

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater Runoff</td>
<td>59%</td>
</tr>
<tr>
<td>Baseflow</td>
<td>21%</td>
</tr>
<tr>
<td>Septic Systems</td>
<td>12%</td>
</tr>
<tr>
<td>Point Source</td>
<td>1%</td>
</tr>
<tr>
<td>Irrigation</td>
<td>7%</td>
</tr>
<tr>
<td>Atmospheric Deposition</td>
<td>Not Modeled</td>
</tr>
</tbody>
</table>

Phillippi Creek 2016 TN Loading

[Diagram of pollutant loading for 2016]
2016 Pollutant loading to the Roberts Bay watershed has more than one source. The Proportion of loading is **High** when % load is compared to % acreage. Phillippi Creek acreage is 85% and % loading is 99%.

Phillippi Creek is a part of the Roberts Bay watershed

<table>
<thead>
<tr>
<th>Watershed</th>
<th>Pounds TN 2016</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roberts Bay watershed</td>
<td>291,564</td>
<td>41,893</td>
</tr>
</tbody>
</table>

The following basins contribute to the loading to the Roberts Bay watershed:

<table>
<thead>
<tr>
<th>Watershed</th>
<th>Pounds TN 2016</th>
<th>% of Watershed Load</th>
<th>Acreage</th>
<th>% of Roberts Bay watershed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matheny Creek</td>
<td>851</td>
<td>0%</td>
<td>1,724</td>
<td>4%</td>
</tr>
<tr>
<td>Phillippi Creek</td>
<td>287,826</td>
<td>99%</td>
<td>35,408</td>
<td>85%</td>
</tr>
<tr>
<td>Roberts Bay</td>
<td>580</td>
<td>0%</td>
<td>1,179</td>
<td>3%</td>
</tr>
<tr>
<td>Roberts Bay Coastal</td>
<td>656</td>
<td>0%</td>
<td>1,546</td>
<td>4%</td>
</tr>
<tr>
<td>Siesta Key Roberts Bay</td>
<td>1,652</td>
<td>1%</td>
<td>2,037</td>
<td>5%</td>
</tr>
</tbody>
</table>