# Woodmere Creek Condition Report for 2018

## PASS

Chl-a N P DO

4 out of 4 indicators were rated as **PASS**.

All four indicators must pass for the creek to be rated as **PASS**.

**Size:** 1,475 acres
**Location:** South Sarasota County
**Discharges into:** Lemon Bay

Woodmere Creek consists of a network of man-made canals and lakes that discharge to the Intracoastal Waterway at the northern limits of Lemon Bay. The entirety of Woodmere Creek is predominantly marine. Most of the area in the Woodmere Creek Basin has been developed. It includes the Hourglass Lake Estates and Circlewood Condominiums, as well a large portion of the Gulfview Estates residential communities. The creek's discharge point is located just south of the Lemon Bay Drive and Palmetto Road intersection. *For basin details see:* ***Woodmere Creek Basin Master Plan (1999)***

### Woodmere Creek




## Water Chemistry Ratings | Freshwater Portion of the Creek

Creek Conditions Ratings are based on comparing nitrogen, phosphorus, chlorophyll and dissolved oxygen to water quality guidelines or regulations. Florida law defines a maximum allowable concentration of nitrogen, phosphorus, and chlorophyll *a*, and a minimum allowable concentration of dissolved oxygen in these streams.

## Water Chemistry Ratings | Tidal Portion of the Creek

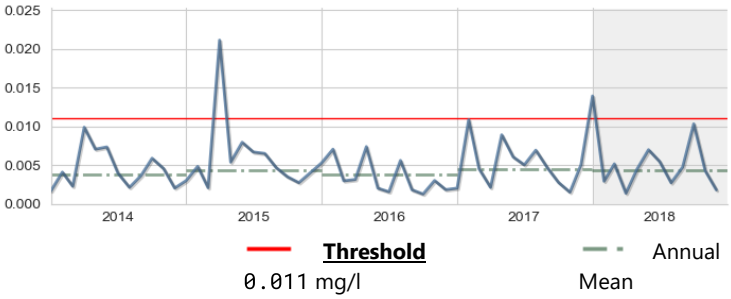
Creek Conditions Ratings are based on comparing nitrogen, phosphorus, chlorophyll and dissolved oxygen to water quality guidelines or regulations. Florida law defines a maximum allowable concentration of chlorophyll *a* and a minimum allowable concentration of dissolved oxygen in these streams. Florida has no regulatory thresholds for nitrogen or phosphorus in tidal creeks so trends are used to rate the creeks.

### Chlorophyll a

**Score:** Pass

| Units: mg/l | Year 2018 | Historical period of record |
|---|---|---|
| **High** | 0.0 | 0.1 |
| **Mean** | 0.0043 | 0.0047 |
| **Low** | 0.0013 | 0.0003 |
| **No. of Samples** | 12 | 728 |

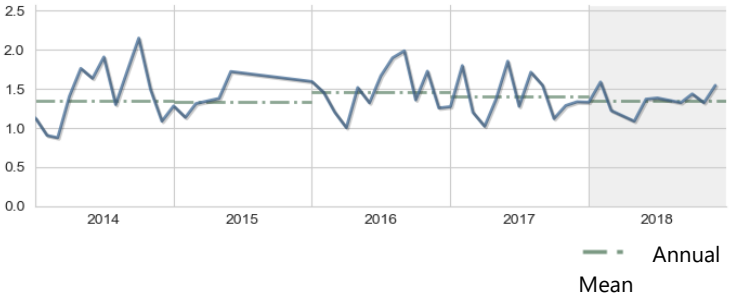
**Five-year Rolling Average**




### Nitrogen, Total

| Units: mg/l | Year 2018 | Historical period of record |
|---|---|---|
| **High** | 1.6 | 7.4 |
| **Mean** | 1.3528 | 1.2889 |
| **Low** | 1.085 | 0.437 |
| **No. of Samples** | 11 | 363 |

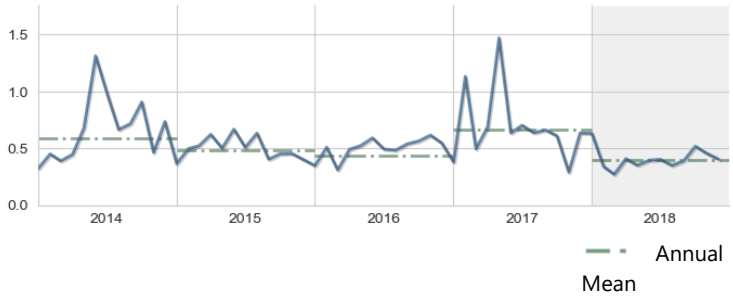
**Five-year Rolling Average**



## Phosphorus, Total

| Units: mg/l | Year 2018 | Historical period of record |
|---|---|---|
| **High** | 0.6 | 3.4 |
| **Mean** | 0.4007 | 0.543 |
| **Low** | 0.271 | 0.179 |
| **No. of Samples** | 12 | 739 |

**Five-year Rolling Average**



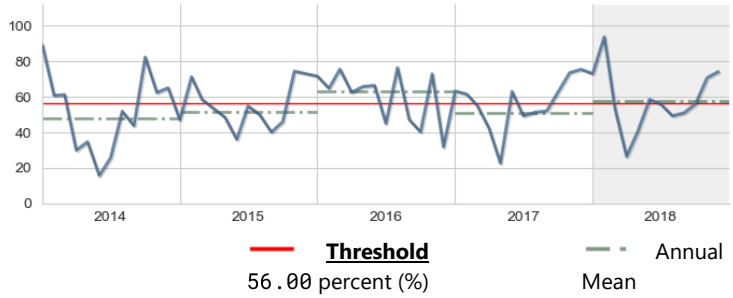

## DO Dissolved Oxygen Saturation

**Note**: Low DO saturation also may be naturally influenced by inflows from nearby wetlands or groundwater sources

**Score:** Pass

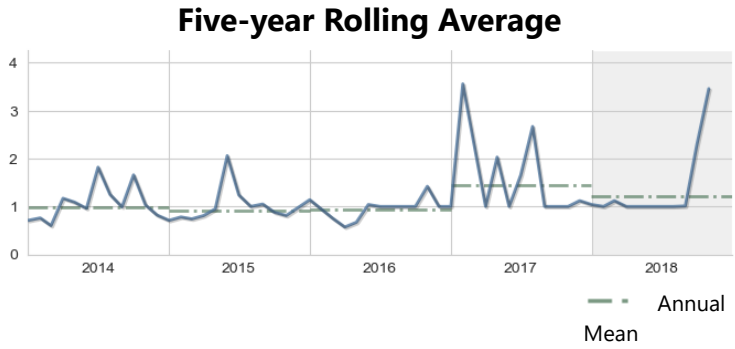
| Units: percent (%) | Year 2018 | Historical period of record |
|---|---|---|
| **High** | 93.7 | 226.0 |
| **Mean** | 57.71 | 52.65 |
| **Low** | 26.40 | 4.90 |
| **No. of Samples** | 15 | 734 |

**Five-year Rolling Average**



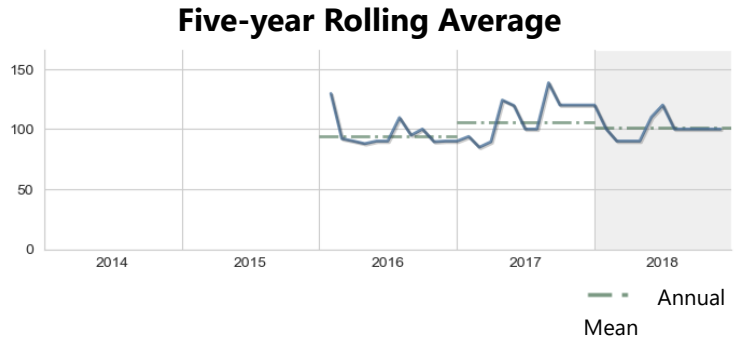
## BOD, Biochemical oxygen demand

| Units: mg/l | Year 2018 | Historical period of record |
|---|---|---|
| High | 3.5 | 19.5 |
| Mean | 1.23 | 1.06 |
| Low | 1.00 | 0.50 |
| No. of Samples | 11 | 721 |



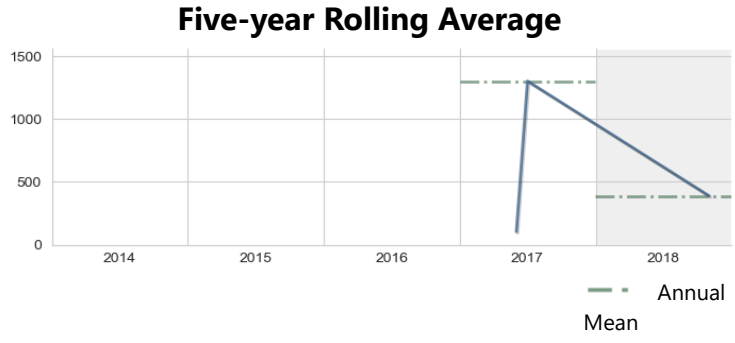

## Color

| Units: PCU | Year 2018 | Historical period of record |
|---|---|---|
| High | 120.0 | 160.0 |
| Mean | 101.21 | 99.2 |
| Low | 90.00 | 70.00 |
| No. of Samples | 12 | 63 |



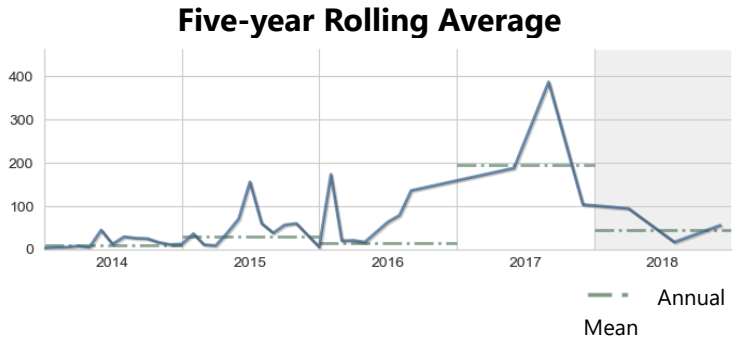

## Enterococcus Group Bacteria

| Units: cfu/100ml | Year 2018 | Historical period of record |
|---|---|---|
| High | 573.0 | 1,300.0 |
| Mean | 387.46 | 482.43 |
| Low | 262.00 | 103.00 |
| No. of Samples | 2 | 5 |



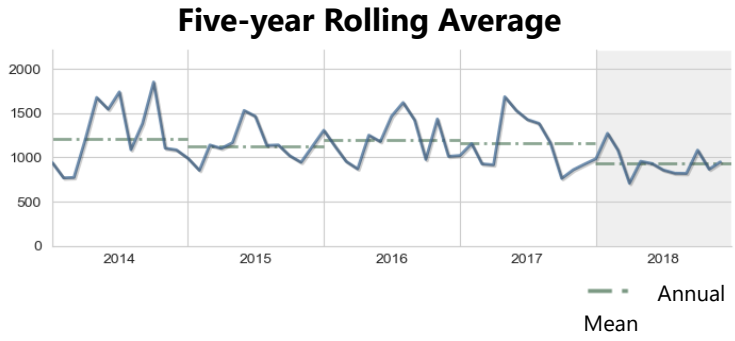
## Nitrogen, Ammonia + Ammonium as N

| Units: ug/l | Year 2018 | Historical period of record |
|---|---|---|
| High | 94.0 | 880.0 |
| Mean | 43.57 | 28.21 |
| Low | 16.00 | 0.008 |
| No. of Samples | 3 | 731 |



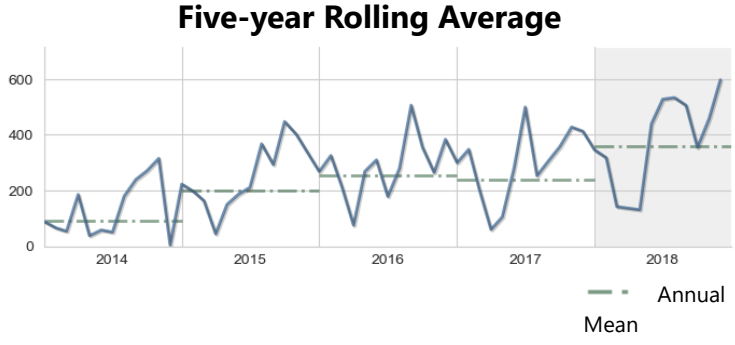

## Nitrogen, Kjeldahl

| Units: ug/l | Year 2018 | Historical period of record |
|---|---|---|
| High | 1,270.0 | 7,340.0 |
| Mean | 931.26 | 1088.4 |
| Low | 705.00 | 50.00 |
| No. of Samples | 12 | 739 |



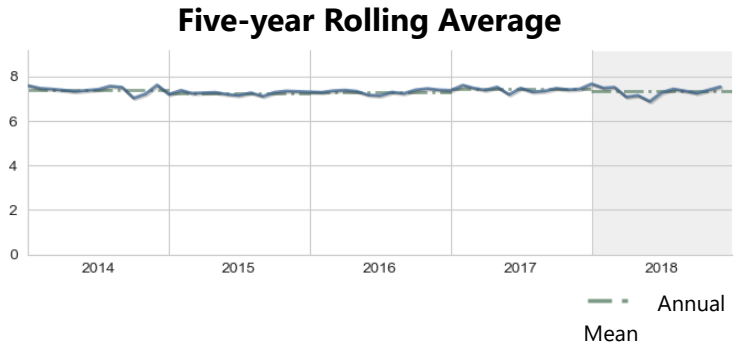

## Nitrogen, Nitrite + Nitrate as N

| Units: ug/l | Year 2018 | Historical period of record |
|---|---|---|
| High | 598.0 | 1,150.0 |
| Mean | 358.29 | 120.09 |
| Low | 131.00 | 4.00 |
| No. of Samples | 11 | 718 |



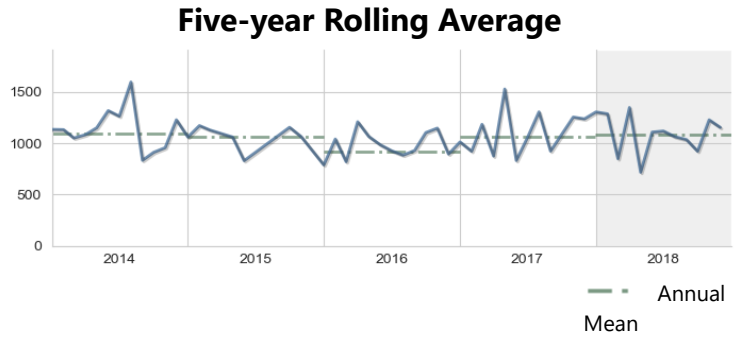
## pH

| Units: None | Year 2018 | Historical period of record |
|---|---|---|
| High | 7.8 | 8.1 |
| Mean | 7.32 | 7.36 |
| Low | 6.40 | 6.40 |
| No. of Samples | 26 | 706 |



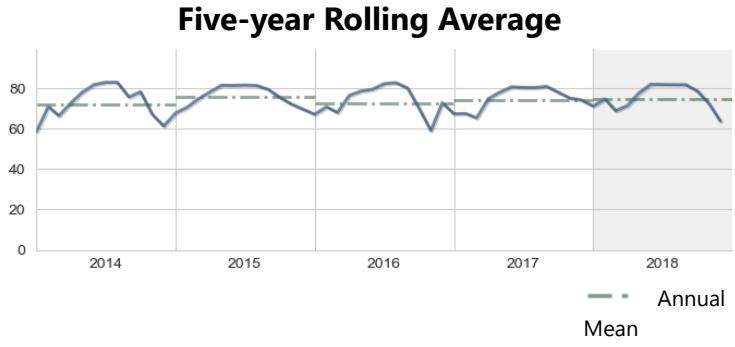

## Specific conductance

| Units: umho | Year 2018 | Historical period of record |
|---|---|---|
| High | 1,346.4 | 44,845.0 |
| Mean | 1083.43 | 973.53 |
| Low | 714.70 | 0.882 |
| No. of Samples | 15 | 627 |




## Temperature, water

| Units: deg F | Year 2018 | Historical period of record |
|---|---|---|
| High | 82.0 | 89.2 |
| Mean | 74.71 | 72.98 |
| Low | 62.06 | 51.026 |
| No. of Samples | 14 | 473 |

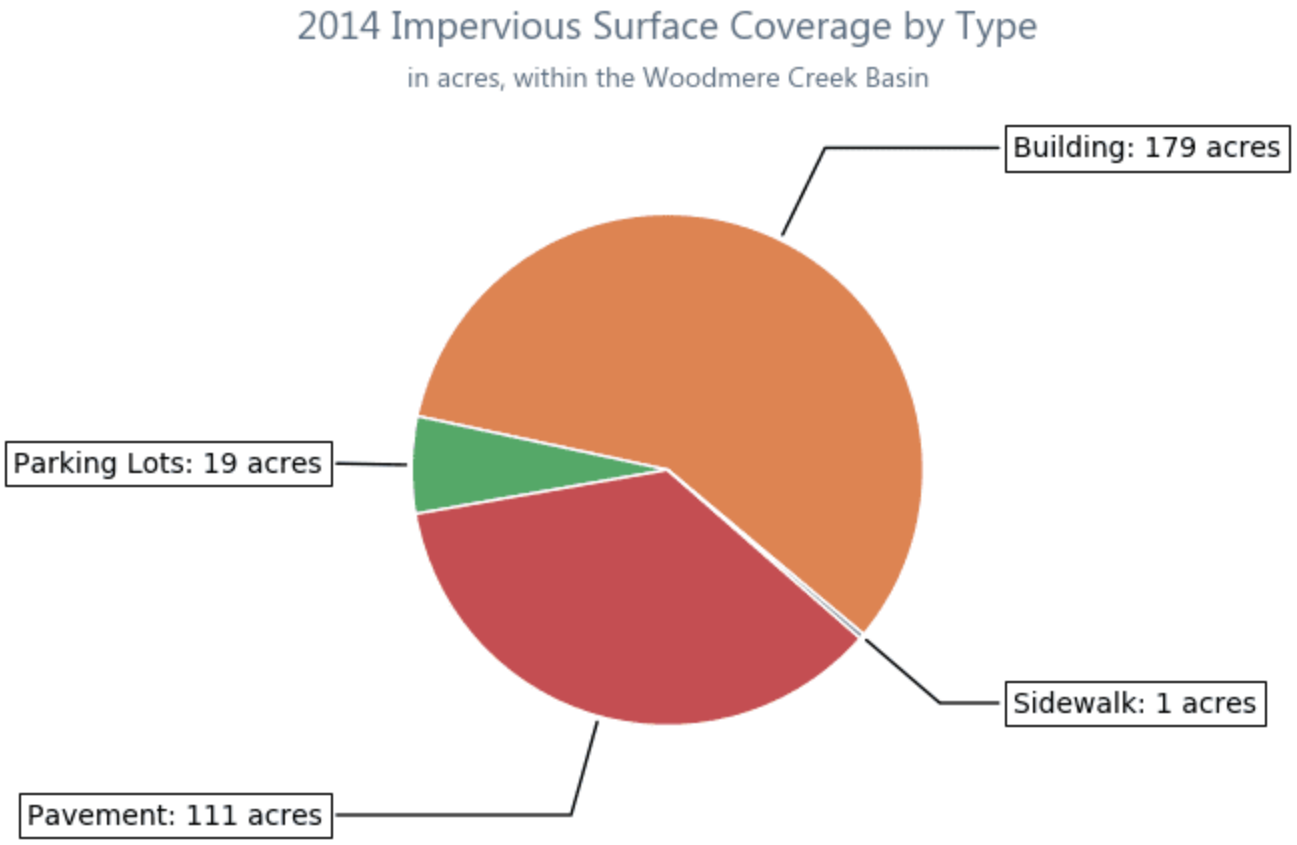



## Impervious Features

Rain that falls on land that is in a natural state is absorbed and filtered by soils and vegetation as it makes it way into underground aquifers. However, in developed areas, "impervious surfaces" impede this process and contribute to polluted urban runoff entering surface waters. These surfaces include human infrastructure like roads, sidewalks, driveways and parking lots that are covered by impenetrable materials such as asphalt, concrete, brick and stone, as well as buildings and other permanent structures. Soils that have been disturbed and compacted by urban development are often impervious as well.



**21%** of the land area within the **Woodmere Creek Basin** is covered by impervious surfaces

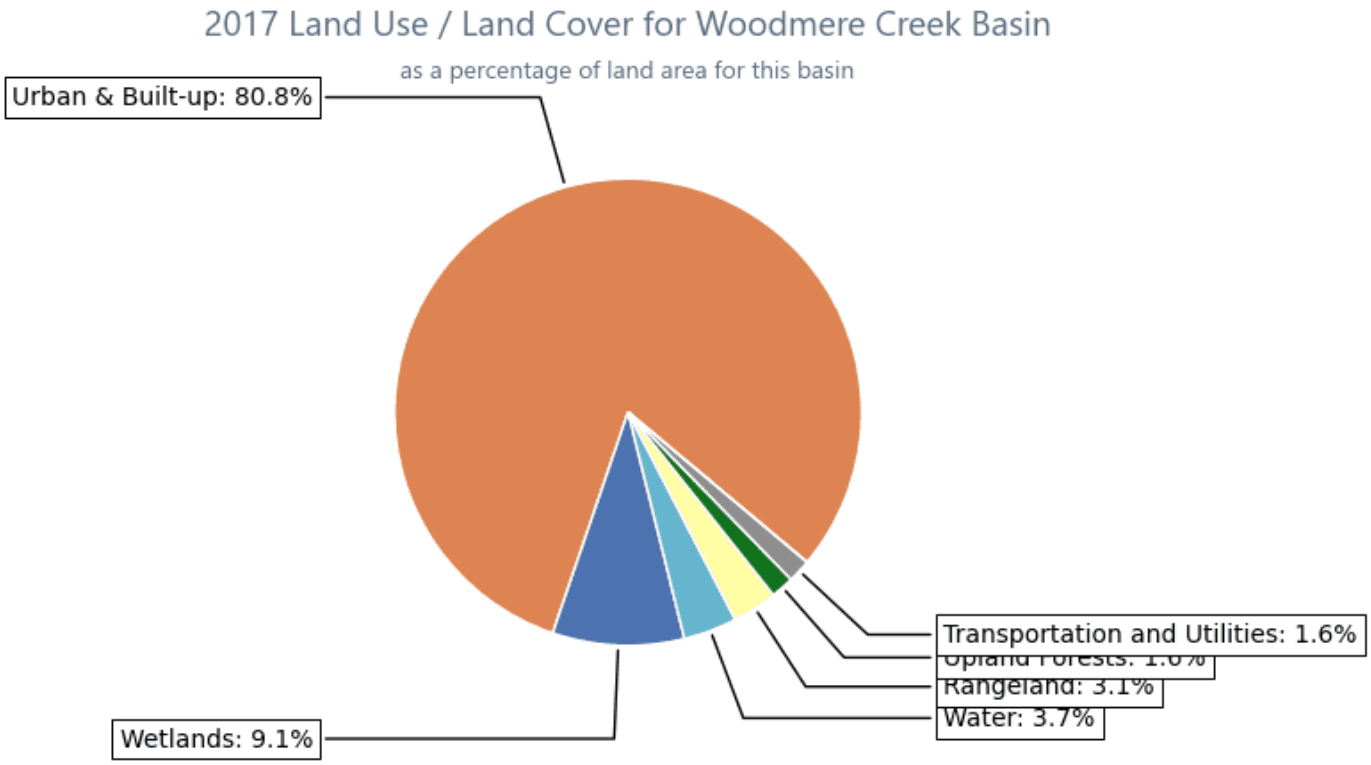



## Land Use / Land Cover

Land use within a creek's watershed has a major effect on its water quality. In general, less development means better water quality. Land Cover/Land Use classifications categorize land in terms of its observed physical surface characteristics (e.g. upland or wetland), and also reflect the types of activity that are taking place on it (agriculture, urban/built-up, utilities, etc.). Florida uses as its standard a set of statewide classifications which were developed by the Florida Department of Transportation.

**Acreage and Percentage within each Land Use / Land Cover Category for Woodmere Creek Basin**

| Land Use Classification | 1990 | 1995 | 1999 | 2005 | 2011 | 2014 | 2017 | Trend |
|---|---|---|---|---|---|---|---|---|
| **Urban & Built-up** | 986<br>66.8% | 1,058<br>71.7% | 1,081<br>73.3% | 1,180<br>80% | 1,195<br>81% | 1,195<br>81% | 1,192<br>80.8% |  |
| **Agriculture** | 0<br>0% | 0<br>0% | 0<br>0% | 0<br>0% | 0<br>0% | 0<br>0% | 0<br>0% |  |
| **Rangeland** | 62<br>4.2% | 25<br>1.7% | 10<br>0.7% | 33<br>2.2% | 46<br>3.1% | 46<br>3.1% | 46<br>3.1% |  |
| **Upland Forests** | 207<br>14% | 196<br>13.3% | 183<br>12.4% | 54<br>3.6% | 24<br>1.6% | 24<br>1.6% | 24<br>1.6% |  |
| **Water** | 34<br>2.3% | 44<br>3% | 47<br>3.2% | 42<br>2.9% | 52<br>3.5% | 52<br>3.5% | 55<br>3.7% |  |
| **Wetlands** | 187<br>12.6% | 151<br>10.3% | 151<br>10.3% | 143<br>9.7% | 135<br>9.1% | 135<br>9.1% | 135<br>9.1% |  |
| **Transportation and Utilities** | 0<br>0% | 1<br>0% | 2<br>0.2% | 24<br>1.6% | 24<br>1.6% | 24<br>1.6% | 24<br>1.6% |  |


2017 Land Use / Land Cover for Woodmere Creek Basin
as a percentage of land area for this basin
Urban & Built-up: 80.8%
Transportation and Utilities: 1.6%
Rangeland: 3.1%
Water: 3.7%
Wetlands: 9.1%