

**SUSTAINABLE PRACTICES  
FOR BUILDING OWNERS AND OCCUPANTS**

# **WATER EFFICIENCY**

**EFFICIENT FIXTURES  
ON-SITE WATER REUSE  
INDIGENOUS LANDSCAPING**

# Efficient Fixtures

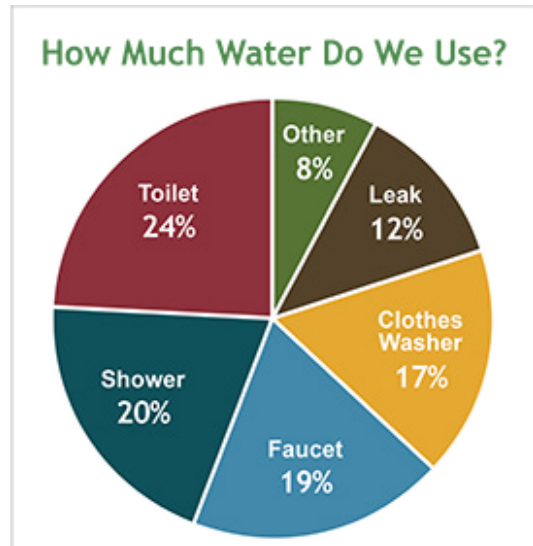


## Background:

Fixtures such as shower heads, kitchen sinks, and bathroom sinks play a significant role in the water efficiency of any occupied space.

## Concept:

Upgrading existing fixtures to energy-efficient fixtures can reduce energy and water bills, while providing environmental benefits.



Source: Water Research Foundation, Residential End Uses of Water 2016

## Did you know?

Pre-1980s toilets use 5.0+ gallons per flush. Present day, high-efficiency toilets use 1.28 gallons per flush on average. A leaking toilet can waste more than 50 gallons of water each day. Over a year that can amount to over 18,000 gallons wasted.

## Example Calculation: Low-Flow Shower Head

$$\frac{14 \text{ min}}{\text{shower}} \times \frac{1 \text{ shower}}{\text{day}} \times \frac{365 \text{ days}}{\text{year}} \times \frac{2.5 \text{ gal}}{\text{min}} \times 2.4 \text{ people} = 30,660 \text{ gal/ year}$$

$$\frac{14 \text{ min}}{\text{shower}} \times \frac{1 \text{ shower}}{\text{day}} \times \frac{365 \text{ days}}{\text{year}} \times \frac{2.0 \text{ gal}}{\text{min}} \times 2.4 \text{ people} = 24,528 \text{ gal/ year}$$

Potential Savings: 6,132 gallons per year

\* Calculation use average values, references in sources

## Did you know?

The average family uses more than 300 gallons of water per day.

\* Average values taken from EPA Exposure Factors Handbook 2011 and Census Reporter.org

1. <https://censusreporter.org/profiles/16000US3663000-rochester-ny/>

2. <http://wateruseitwisely.com/time-low-flow-toilets-take-bow/>

3. [https://www.epa.gov/sites/production/files/styles/medium/public/2017-02/ws-ourwater-water-pie-chart-version-two\\_0.png](https://www.epa.gov/sites/production/files/styles/medium/public/2017-02/ws-ourwater-water-pie-chart-version-two_0.png)

# Indigenous Landscaping



## Background:

Indigenous plant species are native to the local environment, meaning that, compared to their non-indigenous counterparts, they require less water and fewer resources to maintain and stay healthy. Indigenous plants can also provide beneficial habitats and food for native wildlife.

## Pollinator Gardens:

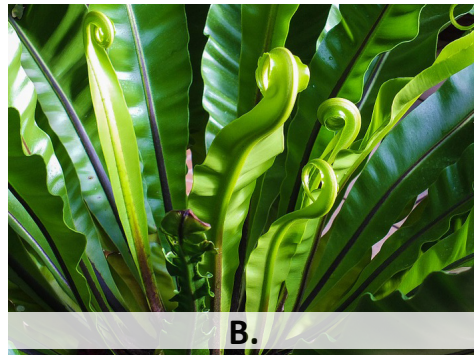
Pollinator gardens are a great way to help your own backyard. [Click here](#) to learn more.

## Test Your Knowledge:

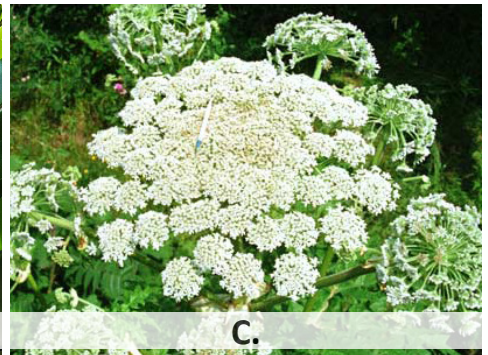
Identify each of the plants from the below picture. Then decide if they are (1) Native, (2) Endangered, or (3) Invasive species



A.



B.



C.

## Plant Classifications and Lists

### 1. Indigenous Species

[Click here](#) for a list provided by the New York Flora Atlas  
[Click here](#) for a list provided by the United States Department of Agriculture

### 2. Invasive Species

Definition (DEC): A species that is non-native to a particular ecosystem, and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species are not permitted to be planted on a site.  
[Click here](#) for a list of invasive species to Monroe County

### 3. Endangered Species

[Click here](#) for a list of Monroe County's Endangered plant species provided by the DEC

**Test Your Knowledge Solution:**

A. Native Lilac  
 B. Endangered Harts Tongue Fern  
 C. Invasive Giant Hogweed

Classification:

Sources: <https://emswcd.org/native-plants/native-plant-benefits/>  
 \*\*<https://www.eia.gov/tools/faqs/faq.php?id=307&t=11>  
<http://newyork.plantatlas.usf.edu/>  
 Hyperlinks: <http://www.ecode360.com/8682809#8682712>  
<http://newyork.plantatlas.usf.edu/results.aspx>

<https://www.nrs.fs.fed.us/data/il/ilpin/county/county.asp?county=133>  
<https://www.nrs.fs.fed.us/data/il/ilpin/county/county.asp?county=133>  
<http://www.dec.ny.gov/animals/7133.html>  
<https://www.fws.gov/pollinators/pollinatorpages/yourhelp.html>