Report to Board on

# Buffers and Pollinators Initiative

April 11, 2023

*Development Services Department*

*Stormwater Program*

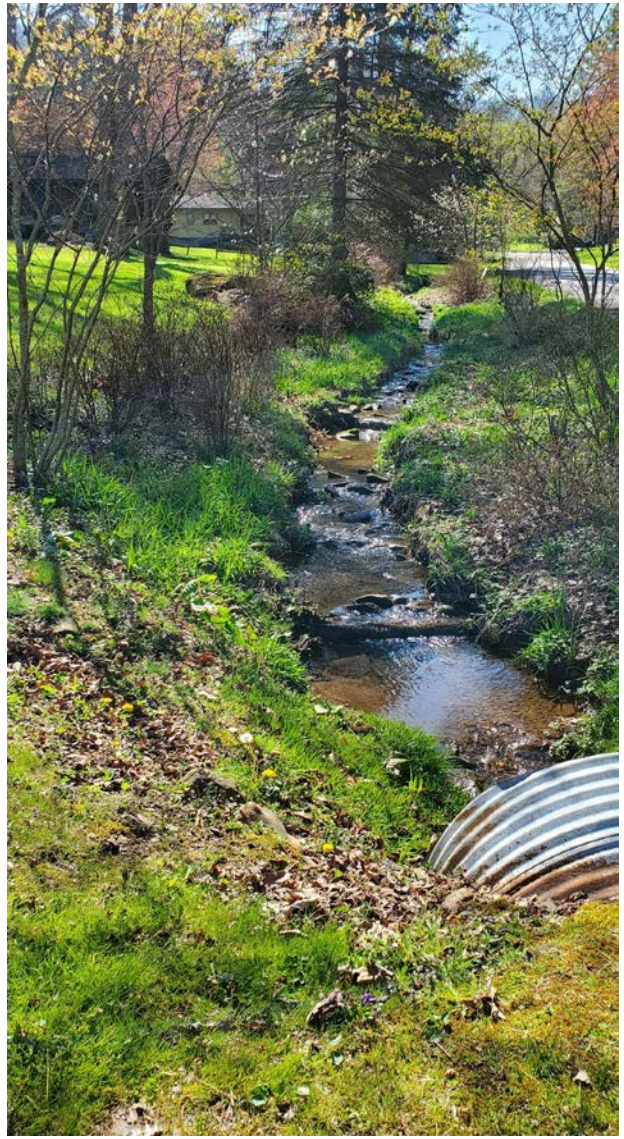
# Stream Buffers

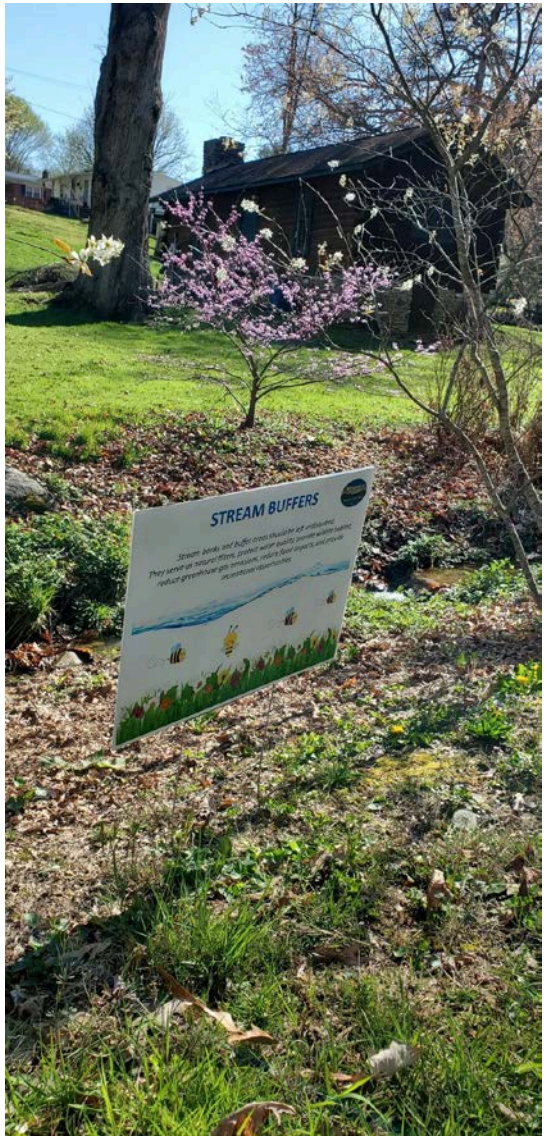
- A riparian buffer is a vegetated area bordering a body of water, such as a stream, lake or pond.

- In North Carolina, DWR has in place riparian buffer rules protecting vegetated areas adjacent to intermittent and perennial streams, lakes, reservoirs, ponds, estuaries, and modified streams.

- Riparian buffers filter stormwater runoff before it enters the stream.
  - vegetated areas closest to water stabilize the streambank, controls erosion, and provides shade and habitat for aquatic life.
  - vegetation acts like a filter and sponge to remove, transform, or store nutrients and other pollutants.
  - outer reaches of the vegetated buffer slow and spread out the flow of water over the land, trapping sediment and attached pollutants.
  - vegetation within buffers provide flood control and protect property.

-NC Department of Environmental Quality, Division of Water Resources

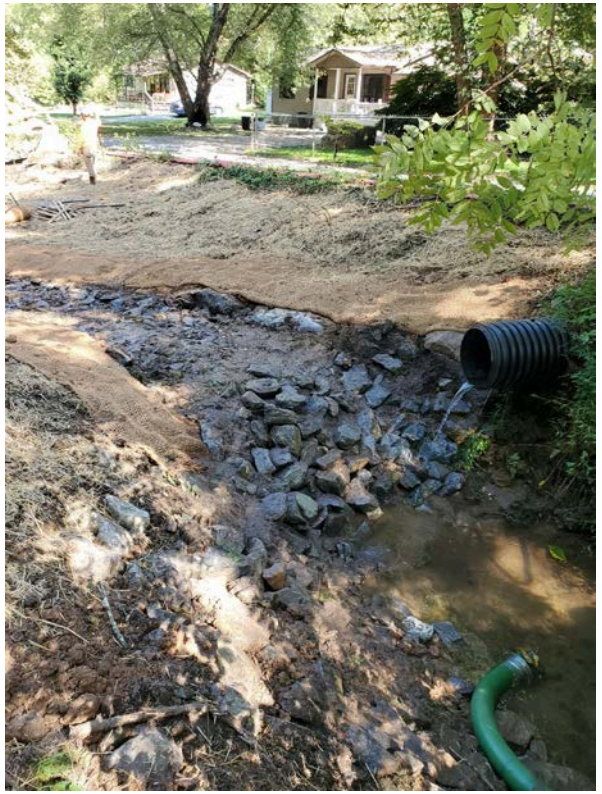


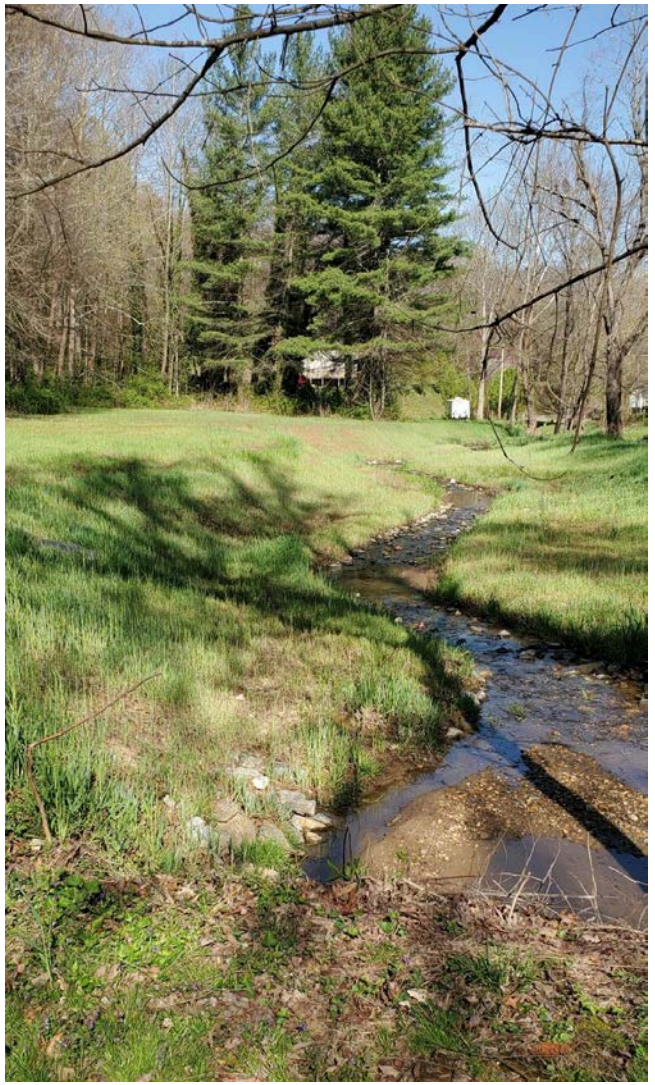



## STREAM BUFFERS

*Stream banks and buffer areas should be left undisturbed. They serve as natural filters, protect water quality, provide wildlife habitat, reduce greenhouse gas emissions, reduce flood impacts, and provide recreational opportunities.*

# East Street Park Buffer Restoration





# Waynesville Rules for Stream Buffers

- No dumping within 30 feet of a stream or any body of water
- No storage areas may encroach into buffer
- An undisturbed buffer of a minimum of 30' from the centerline and a maximum of 25' from the top of bank of any perennial streams shall be maintained.
- undisturbed buffer zone twenty-five (25) feet wide or of sufficient width to confine visible siltation within the twenty-five (25) percent of the buffer zone nearest
- The riparian stream buffers shall be left intact, which means that removal of trees, or other vegetation, or disturbance of soils within this buffer is prohibited when grading.
- Development that falls under stormwater regulations shall keep built-upon area at a minimum of thirty (30) feet landward of all perennial and intermittent surface waters. ***

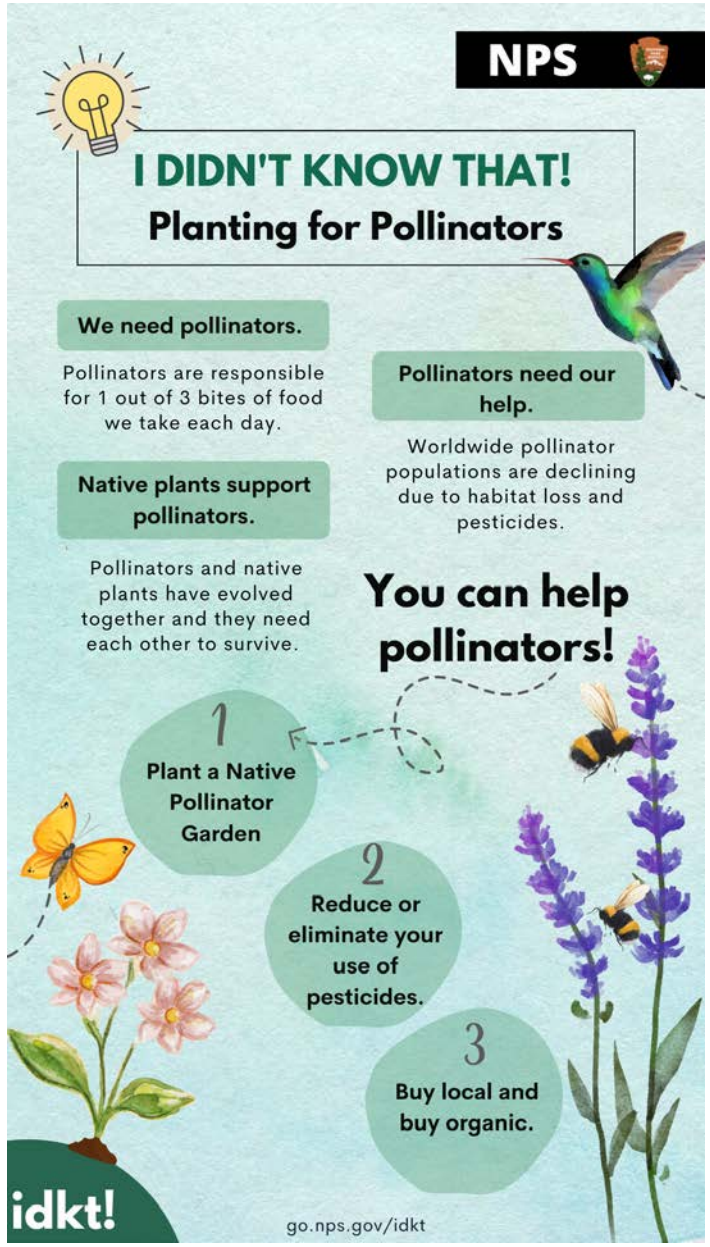
-Waynesville Code of Ordinances and Land Development Standards

# ***Town Stormwater Management requirements (LDS 12.5) re-enforce stream buffers, and promote swales, raingardens, and planted areas.

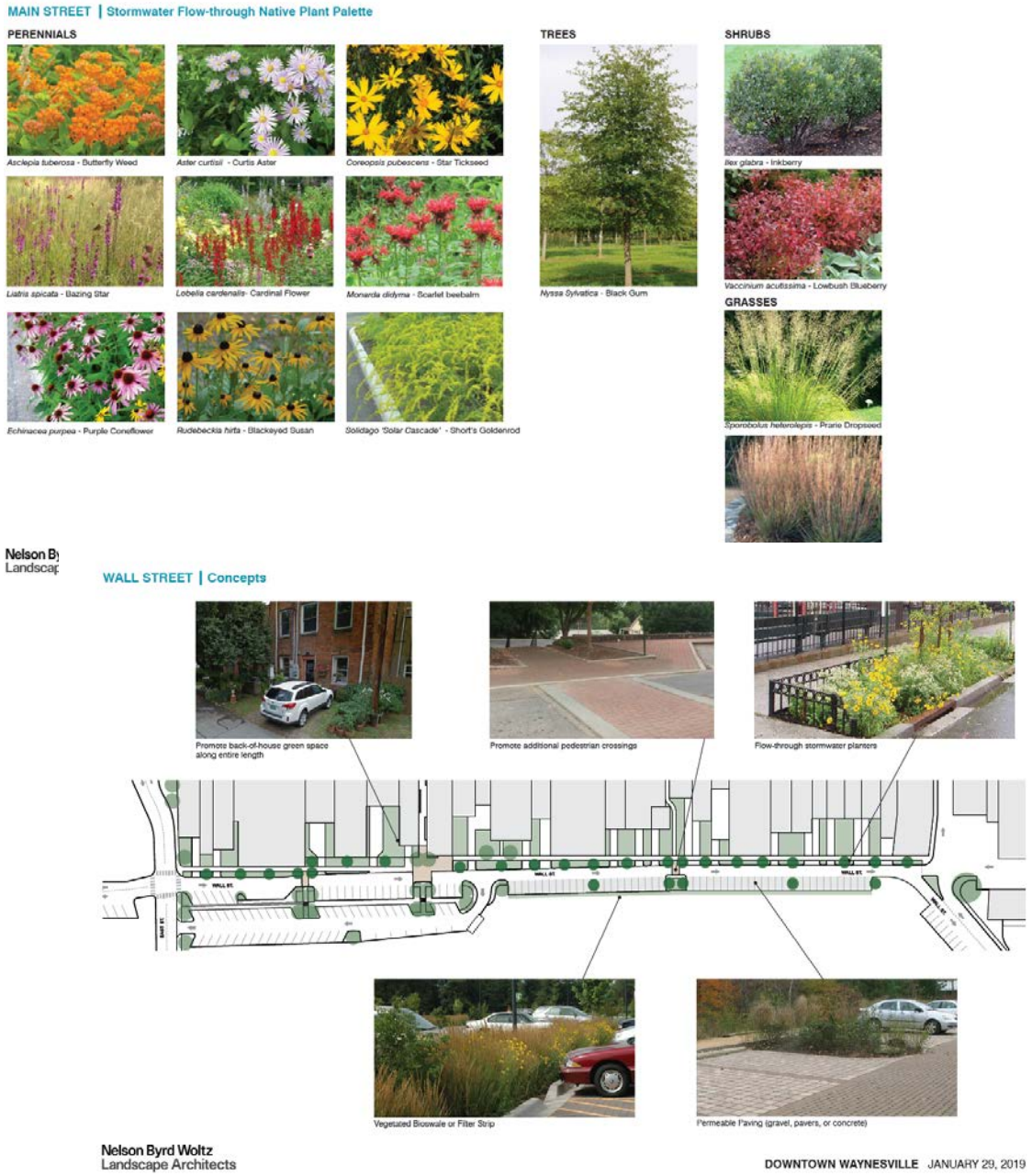
- Rain water is absorbed better and faster
- Plants increase infiltration and improve water quality
- Vegetation can stabilize eroding areas and decrease runoff by enhanced absorption
- Maintains shade cover that keep mountain streams cool

# Benefits to Pollinators

- The movement of pollen must occur for plants to be fertilized and produce fruits, seeds, and new plants.
- Some plants are self-pollinating; others by pollen carried by wind or water; and others are pollinated by insects and animals - such as bees, wasps, moths, butterflies, birds, flies and small mammals, including bats.
- Native bees are particularly important for apple, blueberry and other fruit agriculture.
- Bee Pollinator populations are declining.

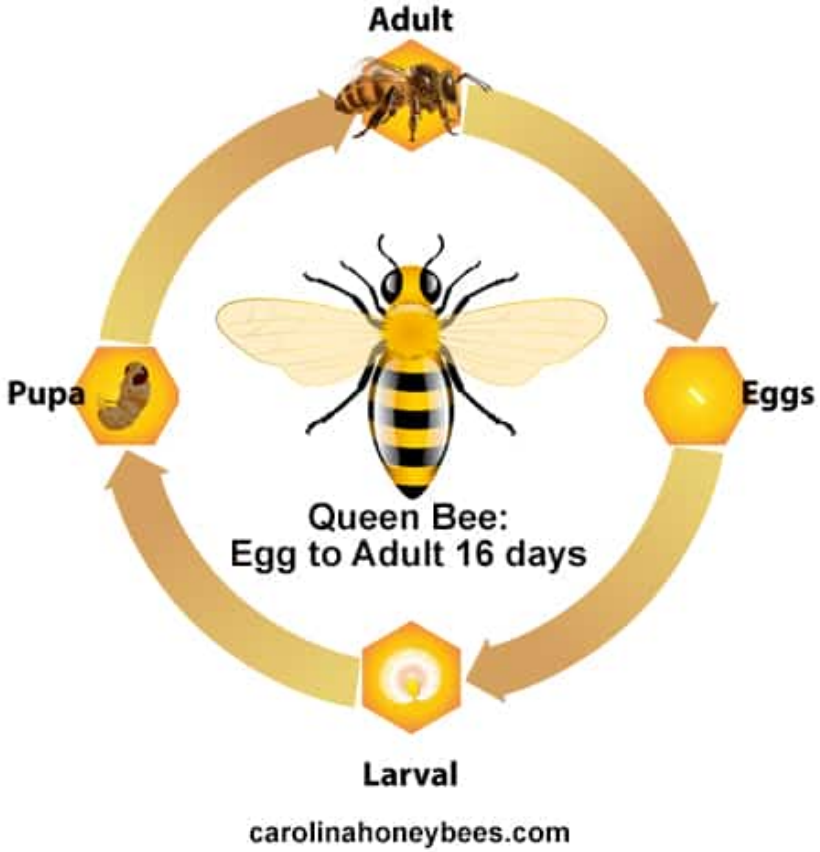


Alternatives to lawns support pollinators, These can be incorporated into landscaping in select areas.

# April-May

- The life cycle of honeybees consists of four stages: eggs, larva, pupa and adult. This entire process varies amongst different bees. It takes about 16 days for the queen, 18 to 22 days for worker bees and 24 days for drones.
- Most types of bees and other insects are active by **April**. Their activities include foraging for food, protecting their nest and pollinating.
- USDA Forest Service study showed that different lawn mowing frequencies influenced bee abundance and diversity.  Their study found that bee abundance increased when lawns were mown every other week.



# Town activities and policies are good for Pollinators:

- Enforcement of buffer requirements, sedimentation and erosion control, and landscape requirements protect existing vegetation and promote new plantings as part of development and redevelopment.
- Use of native plants, shrubs and trees in landscape design.
- Preservation of wetland areas, civic and green space requirements
- Use of greenways and park space for plantings and stream buffer enhancements.

# Staff Request:

## *Preserve buffers and support pollinator regeneration*

- Understand that “no mow” areas along streams are being left undisturbed on purpose to protect water quality and support pollinating insects.
- Allow staff to scale back on mowing in selected public areas from late April through May in order to allow flowering plants to bloom and provide bees and other pollinators with nectar and pollen to feed themselves and their offspring during a critical time in their life cycle and in the pollination of other plants.
- Promote community participation to pause or reduce mowing during the month of May, allowing flowers to bloom to help early season pollinators.
- Allow code enforcement to extend compliance period of Ordinance 26-51, “growth of weeds or grass over 10 inches” during Mid April - May for participating property owners.

Work with Haywood Waterways To send out postcards to the residents: