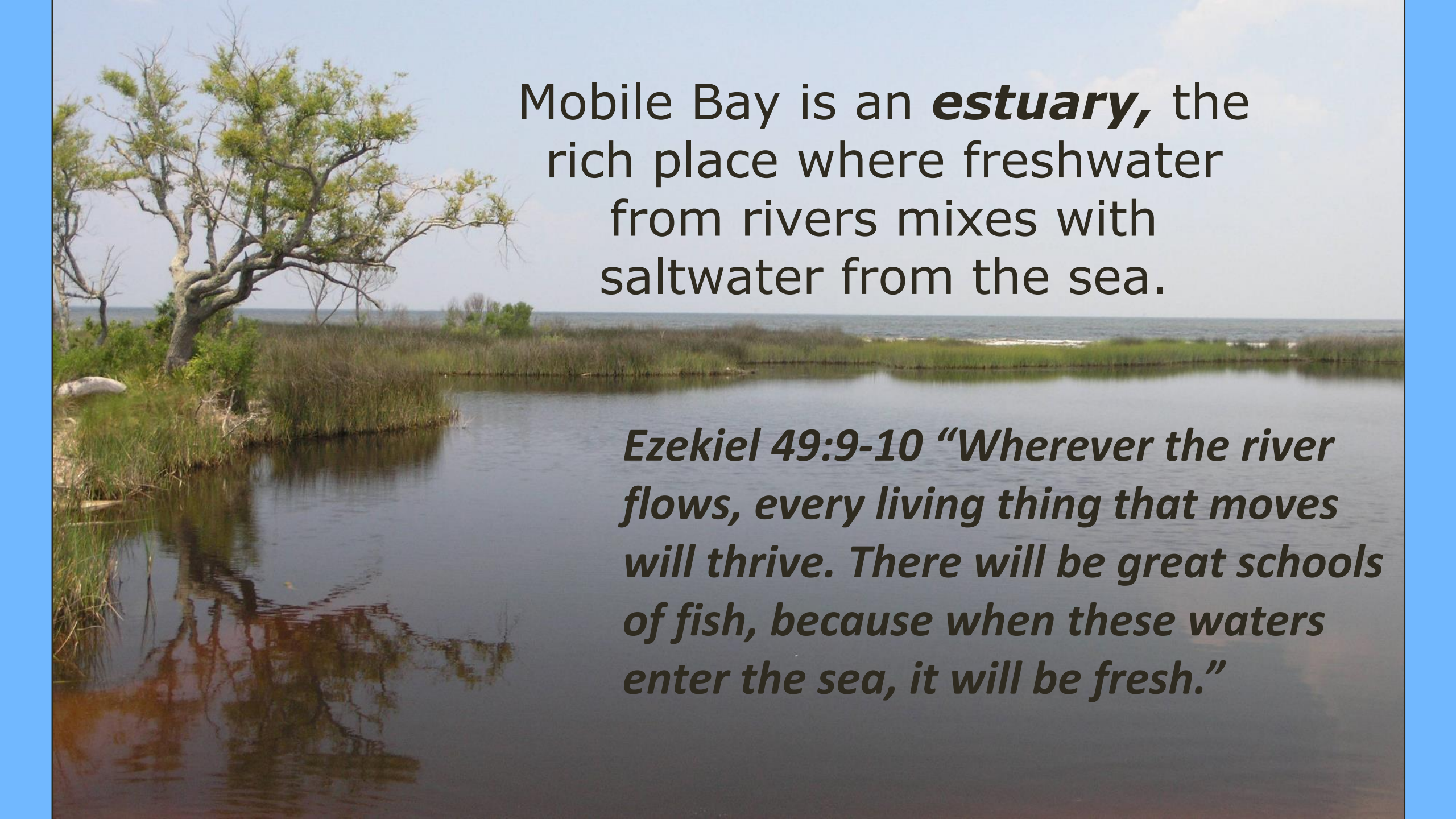


Watersheds 101

Protecting the Outdoor Things That
Make Lower Alabama a Special Place to Live



A Presentation by the **Coastal Alabama Conservation Corps**



Mobile Bay is an ***estuary***, the rich place where freshwater from rivers mixes with saltwater from the sea.

Ezekiel 49:9-10 “Wherever the river flows, every living thing that moves will thrive. There will be great schools of fish, because when these waters enter the sea, it will be fresh.”

Do YOU know what “a Watershed” is?

A **watershed** is an area of land surrounded by *higher* land to form a **basin** (like a sink). All the rainwater that falls inside a watershed runs downhill to one, single body of water: a creek, a river, or even a bay.

YOU live in a watershed.

The Mobile County Training School is in a watershed.
Small watersheds, together, can form big watersheds.

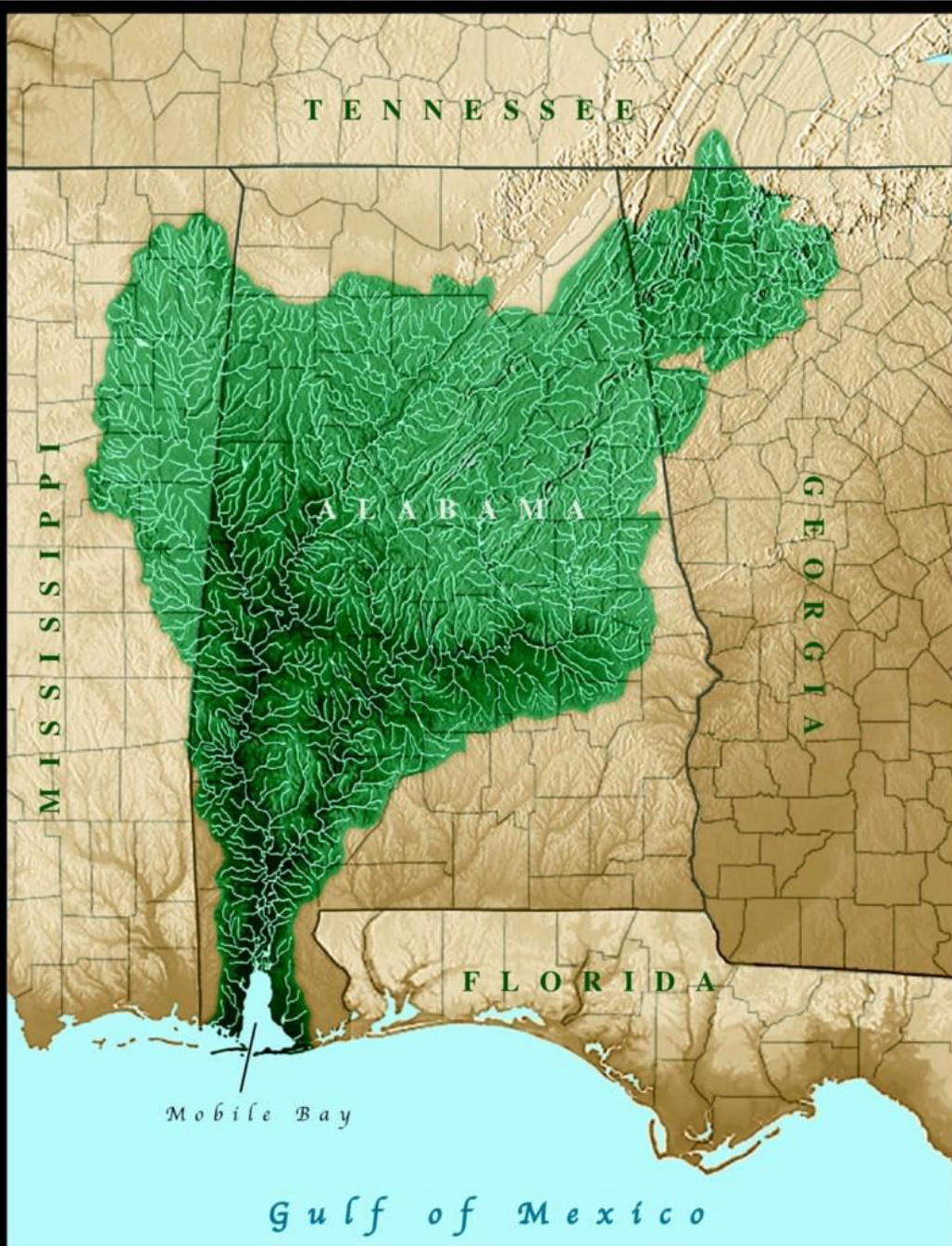


Look at this picture.
How many watersheds
do you see?

The one on the left
has houses, a city, and
a park and drains to
a creek with a bridge.

The one on the right has
farms and woods and
drains to another creek.

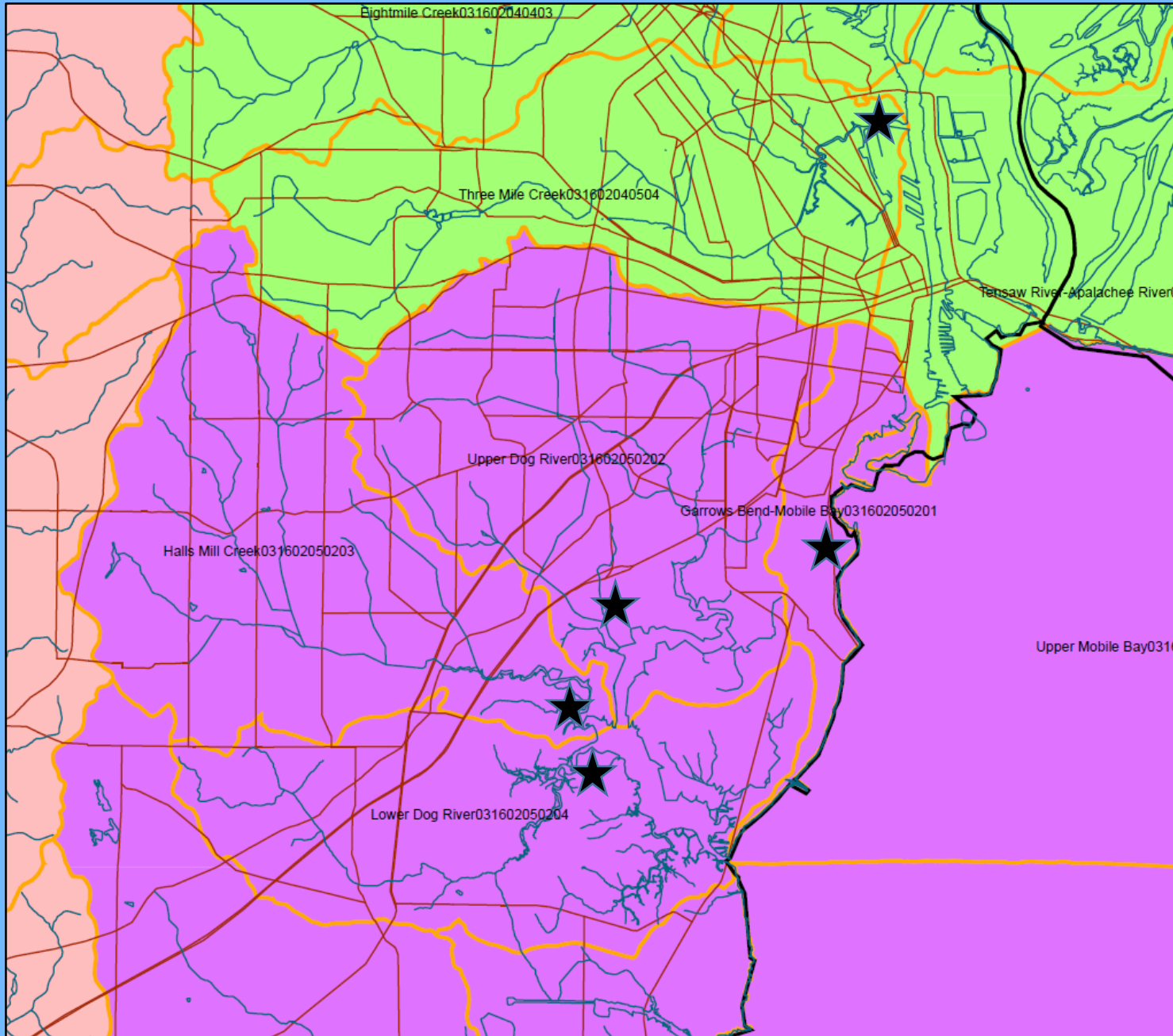
Together, **both** form a
third, BIGGER watershed
that drains to the river
where the guy is fishing.



The Mobile Bay Watershed

This is a *REALLY* big watershed...
It's the 6th largest in the U. S.,
*the **Mobile Bay Watershed.***
It drains most of Alabama,
parts of Mississippi and Georgia,
and even a little bit of Tennessee.

All the rainwater that falls on the
land shaded green runs downhill
to OUR Bay... ...**Mobile Bay!**



The City of Mobile has five watersheds (with orange boundaries):

- **The Three Mile Creek Watershed** drains to the Mobile River and the Bay.
- **The Upper Dog River Watershed,**
- **Halls Mill Creek Watershed,**
- **and Lower Dog River Watershed** all drain to Dog River, then out to the Bay.
- **The Garrows Bend Watershed** drains straight out to Mobile Bay.



Let's talk about
POLLUTION
(mostly about
trash and litter).

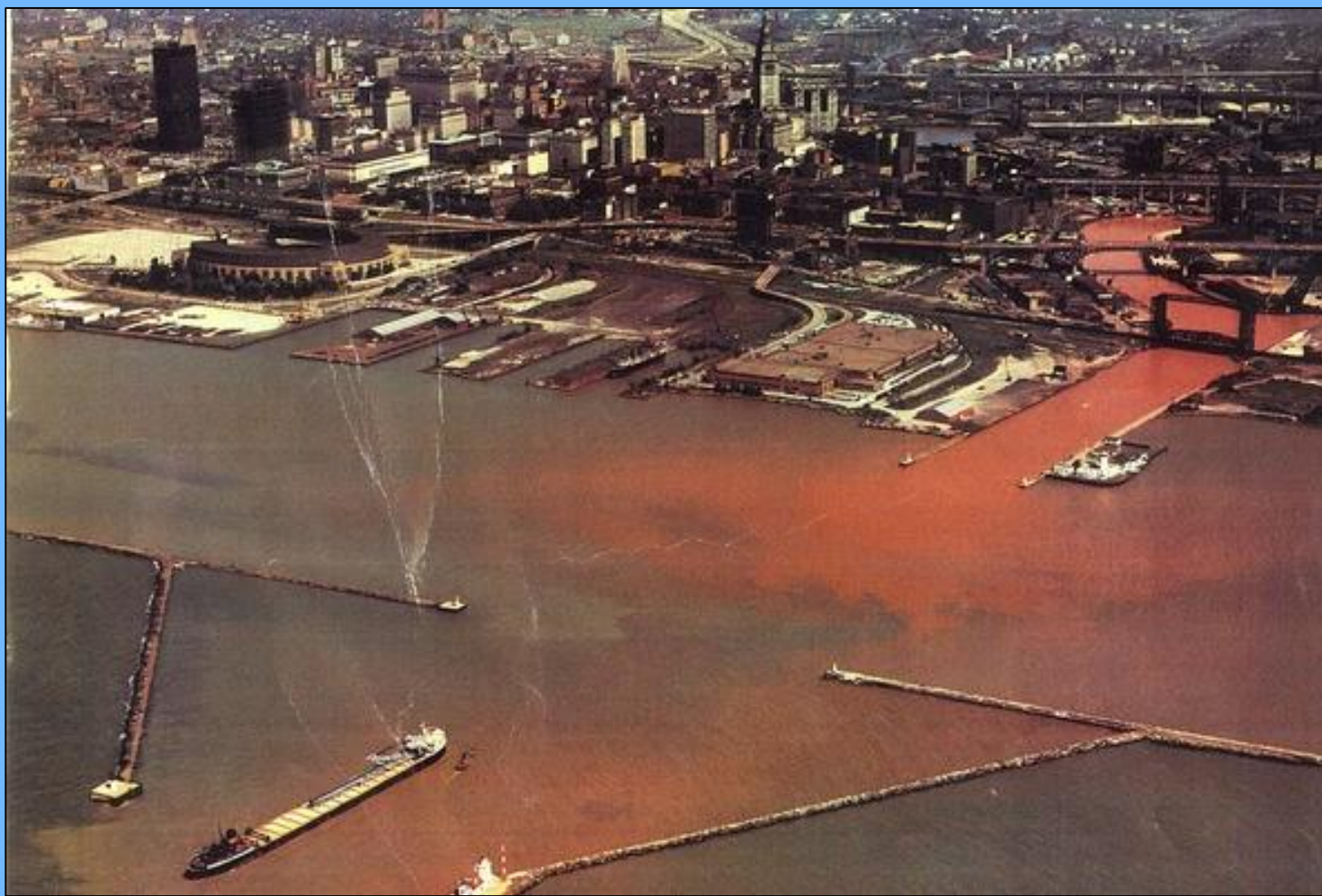
There are two
kinds of
pollution:
**Point Source
Pollution**
and
**Nonpoint Source
Pollution.**



Point Source Pollution
comes from sources you can
easily identify, or *point at*, like
factory waste disposal pipes
dumping into a river.



Smoke stacks are
an example of
point source *air*
pollution.



Point Source Pollution used to be the **BIG** problem.
In 1967, this was the condition of **the Cuyahoga River in Cleveland, OH**, polluted by **point source industrial discharge**.



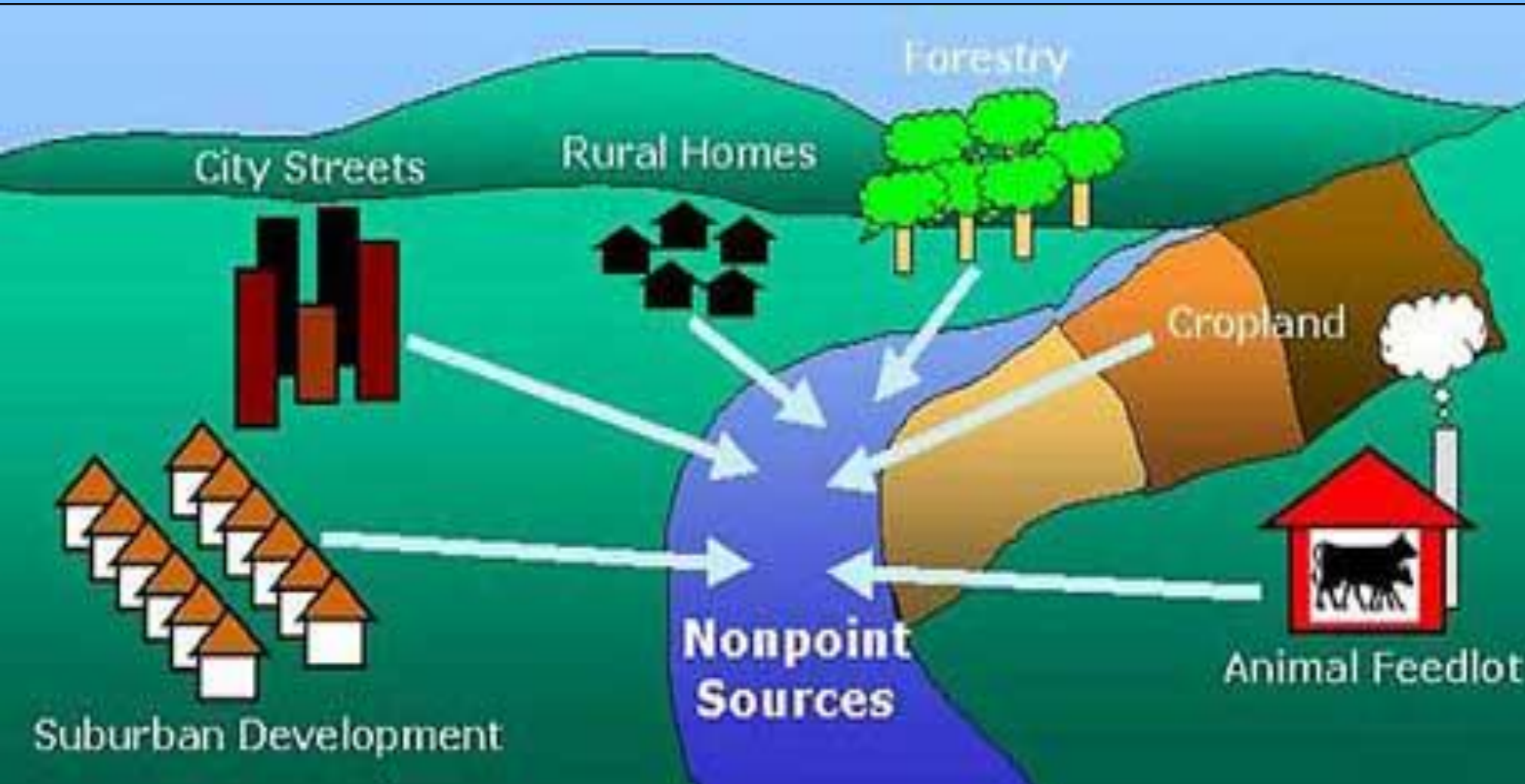
After 13 fires in a major American river, this attention grabber caught national attention on the evening news.

Congress passed the
Clean Water Act in 1972.

It regulated or controlled
all point source discharges
into U. S. national waters.

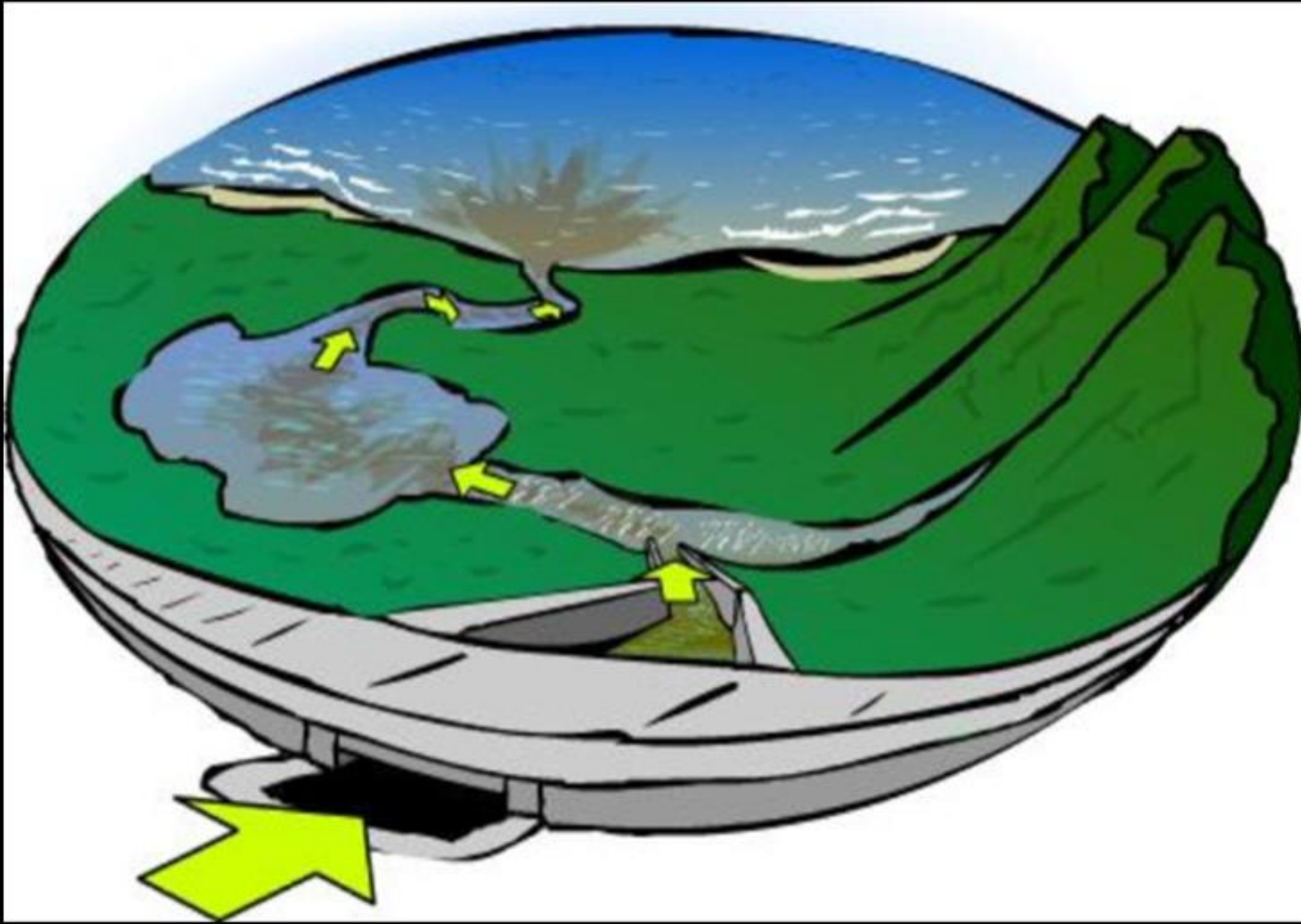
Things got better.

The big problem now is ***Nonpoint Source Pollution*** carried off our lands, streets, parking lots, and yards; down the watershed; and into our waters ***by stormwater runoff***.



Examples:

- Trash and Litter
- Animal poop
- Fertilizer
- Oil and auto fluids
- Paint and household chemicals



Stormwater Runoff
is rainwater that flows
over the ground,
down a storm drain,
and ***directly*** into our
waters ***UNTREATED!***

Do you see a treatment
plant between the storm
drain and the water?

NO! Because there isn't one.

Impervious Surfaces

prevent water from soaking into the ground. This is an aerial photograph of downtown Mobile. Can YOU point out impervious surfaces in this picture? Is Downtown more natural landscape or impervious surface?

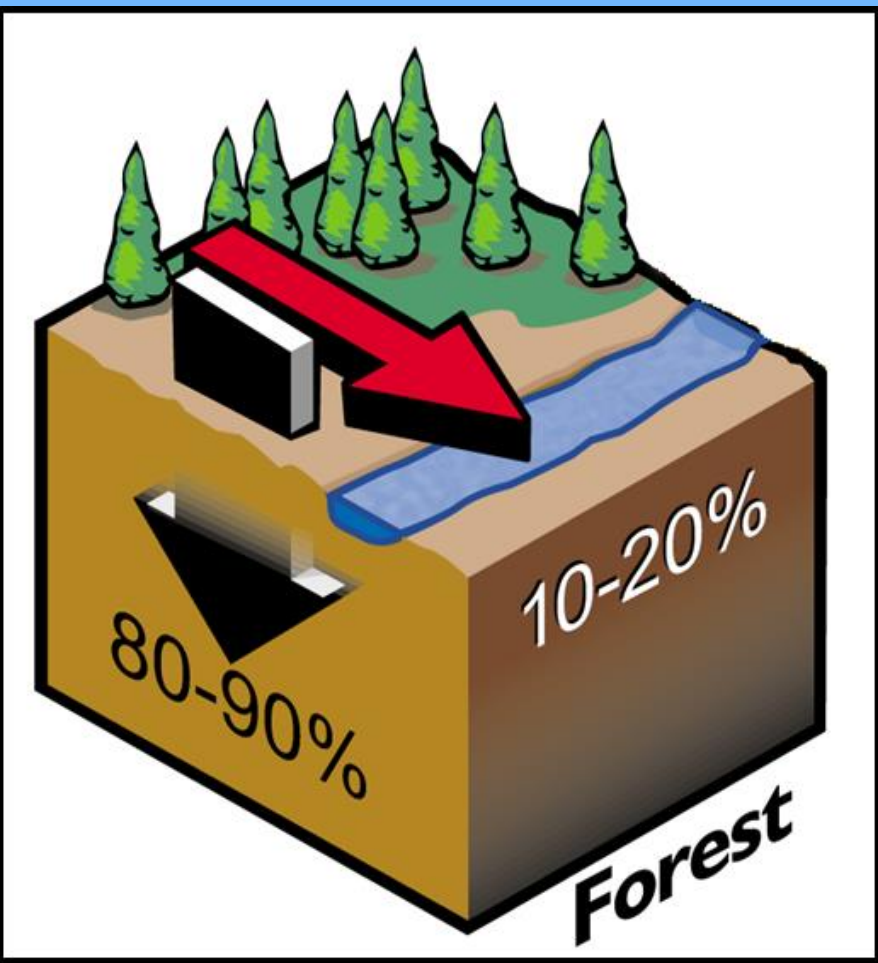




How does development affect stormwater and water quality in a watershed?

In undeveloped watersheds, most rainwater soaks into the ground, or *infiltrates*, where many *good* things happen:

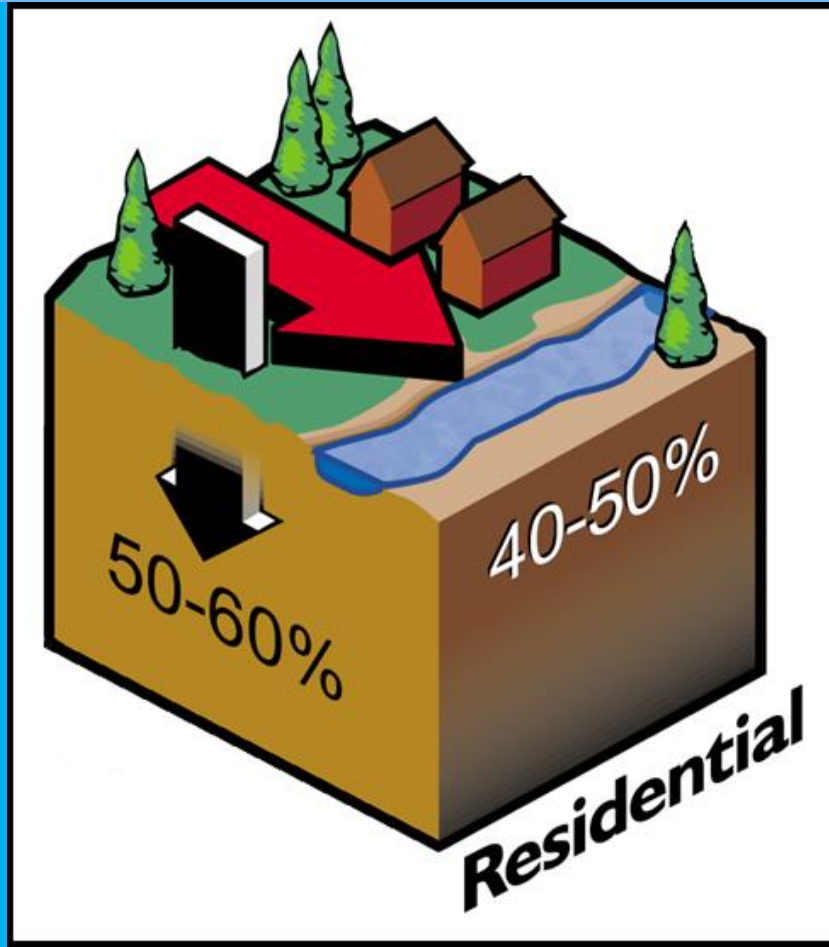
- groundwater supplies are replenished;
- pollutants are taken up by plants or single-celled organisms, or filtered by the soil;
- and erosion and sedimentation are reduced or stopped.



In a natural landscape,
like a forest, there are no
impervious surfaces.

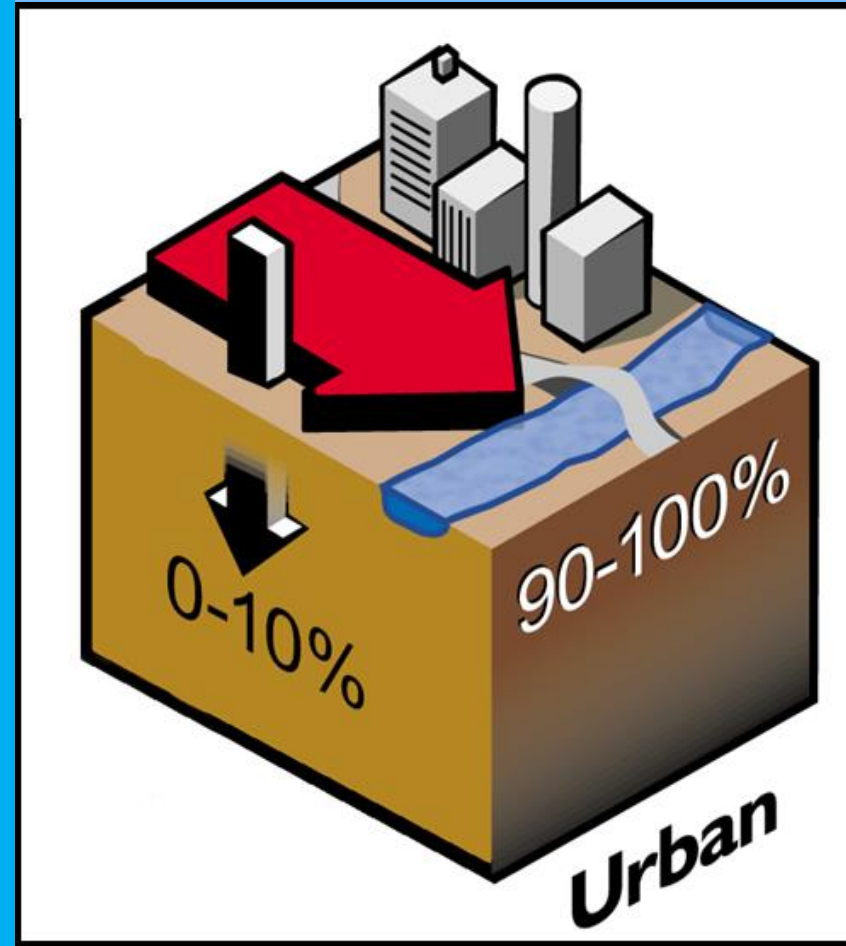
Almost ALL the
rainwater soaks in,
or *infiltrates*.
Almost NONE runs off!

In a neighborhood,
with some natural
landscape and
some impervious
surfaces,



less rainwater
can soak in,
or *infiltrate*.
Lots more
runs off.

An urban landscape, like the City of Mobile, is covered with impervious surfaces. Almost ***NONE*** of the rainwater soaks in, or infiltrates. ***Almost ALL*** runs off!



In which Watershed do you expect a cleaner stream?

Watershed A



Watershed B

Why?



We are the Coastal Alabama Conservation Corps.



We don't work in an office, and we don't get to work in our cars.



We use herbicide, saws, and even syringes to kill invasive plant species that choke out the native plants on which our wildlife depends.



We clear drainage ways in flood-prone neighborhoods of Mobile and Prichard.



We plant trees and native plants in marsh or stream restorations.
We replaced pine trees in the flood plain of a restored Baldwin County creek.



This is a normal view from where we work...



...but so is this...



...and this...



...and even this.

**It looks like everybody in Mobile is throwing
their trash into Three Mile Creek!**

Is that what's happening?

Where is all that trash coming from?



It comes from here. Discarded waste left in parking lots...



...waiting for the next rain storm to be carried by runoff...



...into storm drains. **YOU** know where it goes from there!



That's
right.



**This is a 2016 Public Service
Announcement from the Create
a Clean Water Future Campaign.**

KEEP AMERICA BEAUTIFUL

This iconic, award-winning 1971 Public Service Announcement was created for the second Earth Day from Keep America Beautiful.

What can YOU do?

- **Always throw trash in a trash bin and *never* on the ground.**
- **Go the extra yard, and pick up discarded trash on its way to a storm drain. Put it in a can or trash bag where it belongs.**
- **Encourage your friends to do likewise and take care of our planet.**
- **Encourage your family to recycle paper, glass, plastic, and cardboard. They're reusable!**

Theodore Roosevelt said, “The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased, and not impaired, in value.”

There is a lot we need to do to assure that future generations enjoy a coastal Alabama that is “*not* impaired in value.”

