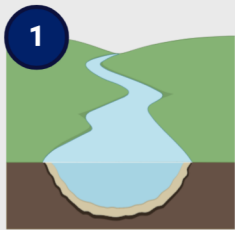


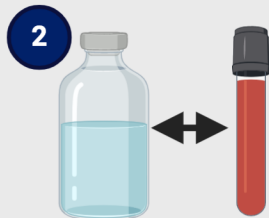
STUDY GOALS

River Study



Understanding how PFAS in the Haw River affects PFAS in drinking water

Exposure Study



Looking at the relationship between PFAS levels in water and in blood in Pittsboro residents

Health Study



Investigating PFAS effects on birth outcomes

Animal Study



Using data from animal studies to explore the exposure and health effects of PFAS in drinking water

Policy Work



Engaging with decision makers on generating policy recommendations

1



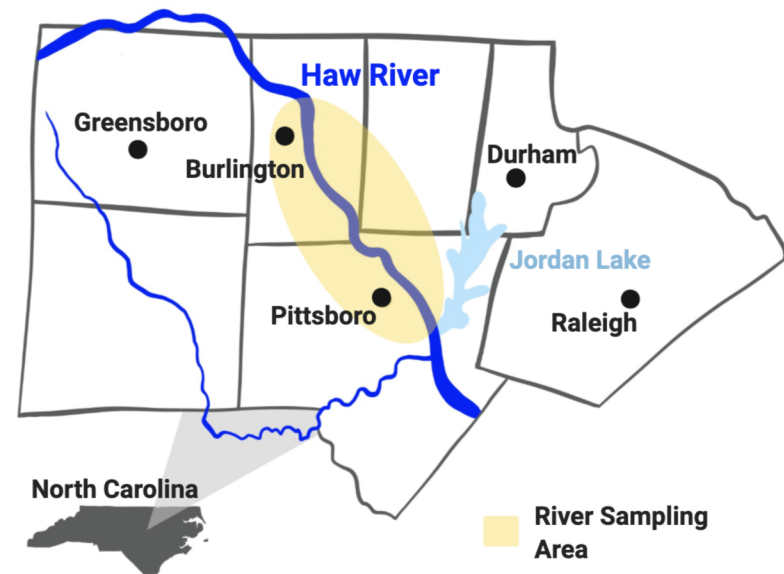
RIVER STUDY

For this study goal, we are looking at PFAS in the Haw River, the source of Pittsboro's drinking water.

RIVER SAMPLING: We have been sampling the Haw River every week for the past few years at several locations and analyzing the water for PFAS. These data will help us understand the sources of PFAS in the river.

MODELING: The data on PFAS levels in the Haw River from this study (and how PFAS levels change over time) will be used in computer models to determine:

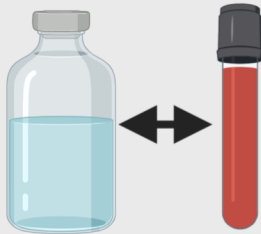
- the contribution of PFAS from point sources (including upstream wastewater treatment plants)
- the influence of evaporation & rainfall on fluctuating PFAS levels



Map of the Haw River in Central North Carolina and our sampling area

2

EXPOSURE STUDY



For this study goal, we are looking at the relationship between PFAS in drinking water and PFAS in blood.

We have recruited about 50 local Pittsboro residents to study this relationship. We will determine what the PFAS levels are in tap water and in blood. We are also looking at how these levels change over time, by doing repeat sampling. This will let us understand how changing levels in the Haw River and in the tap water may later change the blood levels.

We're also exploring how other factors (like sex or age) may impact the PFAS blood-water relationship.

Sample Collection Process for the Exposure Study



Informed consent,
go over study
details & eligibility



Blood sample,
collected by a
phlebotomist



Water sample,
collected from
the home

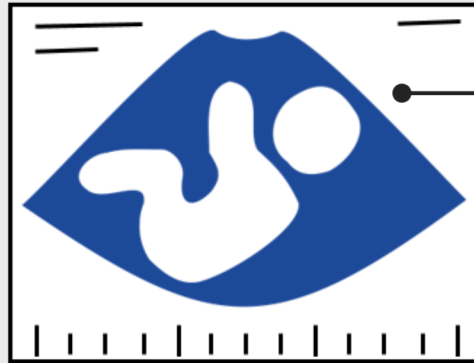


Survey,
on drinking
water habits

3

HEALTH STUDY

We are studying babies born in North Carolina. We are investigating if drinking water from specific sources, like the Haw River, is related to babies being born too early or too small.



PFAS exposure during pregnancy has been related to lower birth weight and a shorter gestation in some past studies.

For this study goal, we are using data recorded on birth certificates all babies born between 2011 and 2016. We are investigating geographic differences in birth weight and the length of gestation across the state. We are also evaluating whether PFAS levels in drinking water explain geographic patterns of birth outcomes.

4



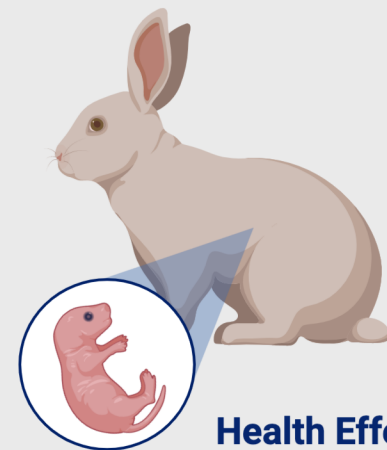
ANIMAL STUDY

For this study goal, we are conducting an animal study to look at how exposure to PFAS through drinking water may lead to health effects.

Our rabbit studies are designed to reflect human PFAS exposure through Pittsboro drinking water. The outcomes of these studies will allow us to address several questions:

- Where does PFAS distribute in the body?
- What health effects occur in the mom during pregnancy?
- How does maternal PFAS exposure affect the health of her offspring?

**PFAS
Water**



**Health Effects &
Birth Outcomes**



POLICY STUDY

For this study goal, we are conducting work on the policy and contributions from different stakeholders.

We have developed a strategy that involves three approaches:

- 1) evaluating alternative drinking water supply options for Pittsboro, NC
- 2) evaluating regulatory mechanisms adopted in other states for monitoring and regulating PFOS/PFOA
- 3) analyzing the costs of PFOS/PFOA drinking water contamination in similar housing markets to place a value on this environmental hazard.

**Lawmakers &
Policymakers**



**Environmental
Groups**



**Industry
Stakeholders**



**Community
Members**

