BRIDGING SENSITIVE STREAMS:

Enviromental Survey Helps a Bridge Replacement Move Forward While Protecting Rare Fish Species

When a Tennessee highway department looking to replace a box culvert bridge realized the stream below might contain endangered species, an environmental survey was needed before work could continue. Terracon environmental professionals answered the call.

**SPECIALIZED BIOLOGICAL SURVEYS**
Terracon’s Tennessee office is a leader in biological surveys in Tennessee counties. Armed with a Smith-Root™ backpack electrofisher, the team went to work. The electrofisher uses low voltage electricity to temporarily stun aquatic life so they can be caught for study. Using the data, the team assessed effects of upstream and downstream of the bridge, the team was able to quickly assess whether endangered species were present.

The Tennessee Wildlife Resource Agency (TWRA) also had an interest in this study because of the possible presence of endangered species, an environmental survey was needed before work could begin. Jon Hart, biologist, and Travis Stamper, senior scientist, enjoyed the chance to get working collaboratively with TWRA and the client, Terracon and kept the project on budget and on schedule with minimal disruption to the project.

During the study, the team found eight fish species and kept the project on budget and on schedule with minimal disruption to the project. Jon Hart, biologist, and Travis Stamper, senior scientist, enjoyed the chance to get working collaboratively with TWRA and the client, Terracon.

On the heels of the landmark 2015 climate accord at which nations around the world committed to reducing greenhouse gas emissions, our top goal was to expedite exploration. The work brought together a team including five geologists and five field technicians, five project engineers, and two authorized project reviewer engineers. Terracon was also able to accurately assess the stream levels, preventing downstream migration through the existing culvert.

Once upstream of the culvert was assessed, the Tennessee Wildlife Resource Agency asked for the stream levels, preventing downstream migration through the existing culvert. The Tennessee Wildlife Resource Agency asked for the stream levels, preventing downstream migration through the existing culvert.

Terracon’s Tennessee office is a leader in biological surveys in Tennessee counties. Armed with a Smith-Root™ backpack electrofisher, the team went to work. The electrofisher uses low voltage electricity to temporarily stun aquatic life so they can be caught for study. Using the data, the team assessed effects of upstream and downstream of the bridge, the team was able to quickly assess whether endangered species were present.

The Tennessee Wildlife Resource Agency (TWRA) also had an interest in this study because of the possible presence of endangered species, an environmental survey was needed before work could begin. Jon Hart, biologist, and Travis Stamper, senior scientist, enjoyed the chance to get working collaboratively with TWRA and the client, Terracon.

During the study, the team found eight fish species and kept the project on budget and on schedule with minimal disruption to the project. Jon Hart, biologist, and Travis Stamper, senior scientist, enjoyed the chance to get working collaboratively with TWRA and the client, Terracon.

On the heels of the landmark 2015 climate accord at which nations around the world committed to reducing greenhouse gas emissions, our top goal was to expedite exploration. The work brought together a team including five geologists and five field technicians, five project engineers, and two authorized project reviewer engineers. Terracon was also able to accurately assess the stream levels, preventing downstream migration through the existing culvert.

Once upstream of the culvert was assessed, the Tennessee Wildlife Resource Agency asked for the stream levels, preventing downstream migration through the existing culvert. The Tennessee Wildlife Resource Agency asked for the stream levels, preventing downstream migration through the existing culvert.

Terracon’s Tennessee office is a leader in biological surveys in Tennessee counties. Armed with a Smith-Root™ backpack electrofisher, the team went to work. The electrofisher uses low voltage electricity to temporarily stun aquatic life so they can be caught for study. Using the data, the team assessed effects of upstream and downstream of the bridge, the team was able to quickly assess whether endangered species were present.

The Tennessee Wildlife Resource Agency (TWRA) also had an interest in this study because of the possible presence of endangered species, an environmental survey was needed before work could begin. Jon Hart, biologist, and Travis Stamper, senior scientist, enjoyed the chance to get working collaboratively with TWRA and the client, Terracon.

During the study, the team found eight fish species and kept the project on budget and on schedule with minimal disruption to the project. Jon Hart, biologist, and Travis Stamper, senior scientist, enjoyed the chance to get working collaboratively with TWRA and the client, Terracon.

On the heels of the landmark 2015 climate accord at which nations around the world committed to reducing greenhouse gas emissions, our top goal was to expedite exploration. The work brought together a team including five geologists and five field technicians, five project engineers, and two authorized project reviewer engineers. Terracon was also able to accurately assess the stream levels, preventing downstream migration through the existing culvert.

Once upstream of the culvert was assessed, the Tennessee Wildlife Resource Agency asked for the stream levels, preventing downstream migration through the existing culvert. The Tennessee Wildlife Resource Agency asked for the stream levels, preventing downstream migration through the existing culvert.
Building on Success: Terracon follows through on its commitment to our clients. Whether it’s fast-tracking a project, performing site work, or ensuring the project is on track, the Terracon team delivers. When providing quality assurance services for the owners and their design consultants, owners—and bring a unique understanding of the entire project process.

Terracon has extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginning to the end. Our team, Terracon pays attention to the details. And with our extensive experience, we understand the project from the beginn