

# Michigan Lake and Stream Leaders Institute

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The Elements of Style by Strunk and White:

***Omit needless words***

**(But for heaven's sake, include the needed ones)**

The **Midwest agricultural community** is adapting to **reduce environmental impacts**. ?

Farmers are using an advanced technique to increase water quality. It is called a Two-Stage Ditch. Standard, channeled ditches in fields export excess **phosphorus and nitrogen sediments**, which contaminate drinking water, **harm water inhabitants** and **fuel algal blooms** downstream. A Two-Stage Ditch is constructed with **multiple banks**, which reduce those sediments.

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**Planted in the middle of rolling farm fields, runoff is collecting at the bottom of a ditch.** The ditch cuts through the fields, **affecting** the watershed nearby. However, this isn't just a regular trench in the ground. It is called a two-stage ditch. The system consists of two benches on either side of the stream at the bottom of the ditch. The benches act as a buffer for the sediments that are draining from the farm field.

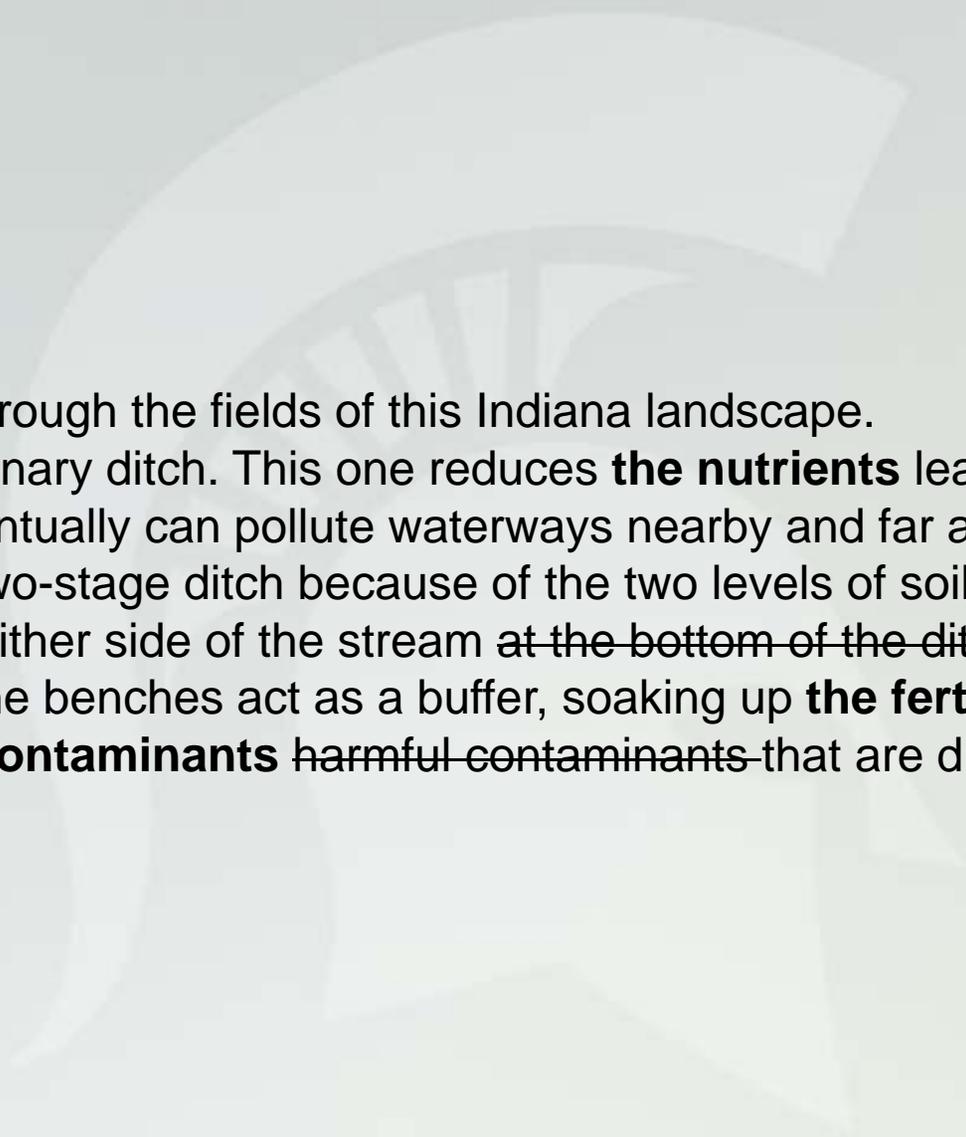
WARSAW, Ind. – A ditch cuts through the fields of the Indiana landscape.

But it's no ordinary ditch. This one reduces the environmental impacts that the farm fields have on the surrounding watershed.

It is called a two-stage ditch. It has **two benches** on either side of the stream at the bottom of the ditch. The benches act as a buffer, soaking up the sediments that drain from the field.

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Paragraph 3: It is called a two-stage ditch because of the **two levels of soil, called benches, on either side of the stream** at the bottom of the ditch. The benches act as a buffer, soaking up the harmful contaminants that are draining from the field.



A ditch cuts through the fields of this Indiana landscape. But it's no ordinary ditch. This one reduces **the nutrients** leaving the farm fields that eventually can pollute waterways nearby and far away. It is called a two-stage ditch because of the two levels of soil, called benches, on either side of the stream ~~at the bottom of the ditch~~ **that flows through it**. The benches act as a buffer, soaking up **the fertilizers and other water contaminants** ~~harmful contaminants~~ that are draining from the field.

- [How an upstream ditch limits downstream algae](#)
- 82 Tweets
- 52 Facebook likes

- How much phosphorus was there before and after the construction of the two stage ditch?

- Hi, Sandy. Good question! Thanks for asking. The Nature Conservancy reports that initial phosphorus levels were not taken before construction of the two stage ditch. However, in a control area of the stream where no change was made, there were 53 more tons of sediment than in the two-stage ditch. Taking into account the cover crop in the field, there is nearly 40 percent less nitrogen deposited into the water in the two-stage ditch in Mentone, Indiana. However, every system is unique. I hope this helps! – Jenna Chapman, Great Lakes Echo reporter.

Good Morning Jenna,

I would like to share your article on “How an upstream ditch limits downstream algae.” I read the article on the GLIN News. I tried to share the article, but the site would not let it happen. I have worked with Laura Lindemann some on the Hardin County ditches. The Army Corp of Engineers would like to install several miles of two stage ditches in the watershed. ***Is it OK. to copy and distribute the article.***  
Thank you for your time.

Phil Martin

Blanchard River Watershed Coordinator

Hi David,

The Blanchard River watershed is located about 45 miles south of Toledo. The Blanchard River flows into the Auglaize River which flows into the Maumee R.. We are a part of the Western Lake Erie Basin. The Nature Conservancy has installed 2 two-stage ditches in the southern part of the watershed. I have work with Laura Lindeman some on these projects. The Army Corp of Engineers would like to build more two-stage ditches in our watershed. I have also worked with Dr. Ward from The Ohio State University on finding locations. ***I thought Jenna's article was well written and easy to understand. I wanted to post it on our Facebook page, website and use it our quarterly newsletter.***

# Telling technical stories



# What are the most technical stories that a general readership is expected to understand?

- Economics?
- Public Policy?
- Health care?
- Politics?
- Science?
- Environment?
- Nuclear physics



# Sports

## Rose Bowl fact set

- Score: MSU 24, Stanford 20
- 1:46 left in the game.
- Stanford has the ball on its own 34-yard line.
- It's fourth down with 1 yard needed for a first down.
- Stanford goes for the first down.
- Stanford fullback Ryan Hewitt tries to dive over the line with the ball.
- MSU linebacker Kyler Elsworth stops him from getting the first down.
- MSU gets the ball back, runs out the clock and wins.

You could read this in any U.S. sports story and most people will understand it:

***It was fourth and one on their own 34 when Stanford decided to go for it. But the Spartans stuffed Stanford at the line, took over on downs and ran out the clock for the win.***

## But without understanding the jargon...

- Fourth and one?
- On the 34 what?
- Go for it?
- Stuffed at what line?
- Took over on downs? What's a down?
- Ran out the clock?
- There is a clock?

Readers aren't dumb. They are capable of understanding complexity, if you find the common language that you share.

You are not a poor communicator. You are capable of explaining complexity, if you find the common language that you share with readers.

## Tips for killing jargon

- Tell a spouse, parent, friend  
*(Don't fake that. Really tell a spouse, parent, friend)*
- Avoid bureaucratic names and acronyms
- Write first with the jargon
- Now rewrite, focusing on translating the jargon









## Story hooks

- Picture
- Audience identification
- Word picture
- Anecdote
- Conflict
- Cliffhanger



# SILENT SPRING



The CLASSIC that LAUNCHED  
the ENVIRONMENTAL MOVEMENT

# RACHEL CARSON

Introduction by LINDA LEAR    Afterword by EDWARD O. WILSON





The researcher provided the ammunition to change  
the world

But it was the communicator who lit the fuse.

