

Implementing Prioritized Projects from a Watershed Plan on Picadome Golf Course in Lexington, KY

Session C

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Project Team



LEXINGTON



Project Area



Project Background

- Habitat and Macroinvertebrate Assessment Report
- Wolf Run Watershed Assessment
- 319(h) Grant Application and Contract
- Additional local funds for construction of Vaughns Branch and stormwater wetlands



Scope of Project

- Reduce streambank erosion
- Improve aquatic habitat on the Big Elm Tributary and Vaughns Branch
- Improve water quality by capturing trash and debris
- Provide for a native riparian buffer zone along restored stream channels
- Improve water quality by establishing two stormwater wetlands



Big Elm Tributary



Big Elm Tributary Existing Conditions



Upper reach was actively incising and laterally migrating.



Middle reach contained a tight meander with a vertical eroding outer bank.

Big Elm Tributary Existing Conditions

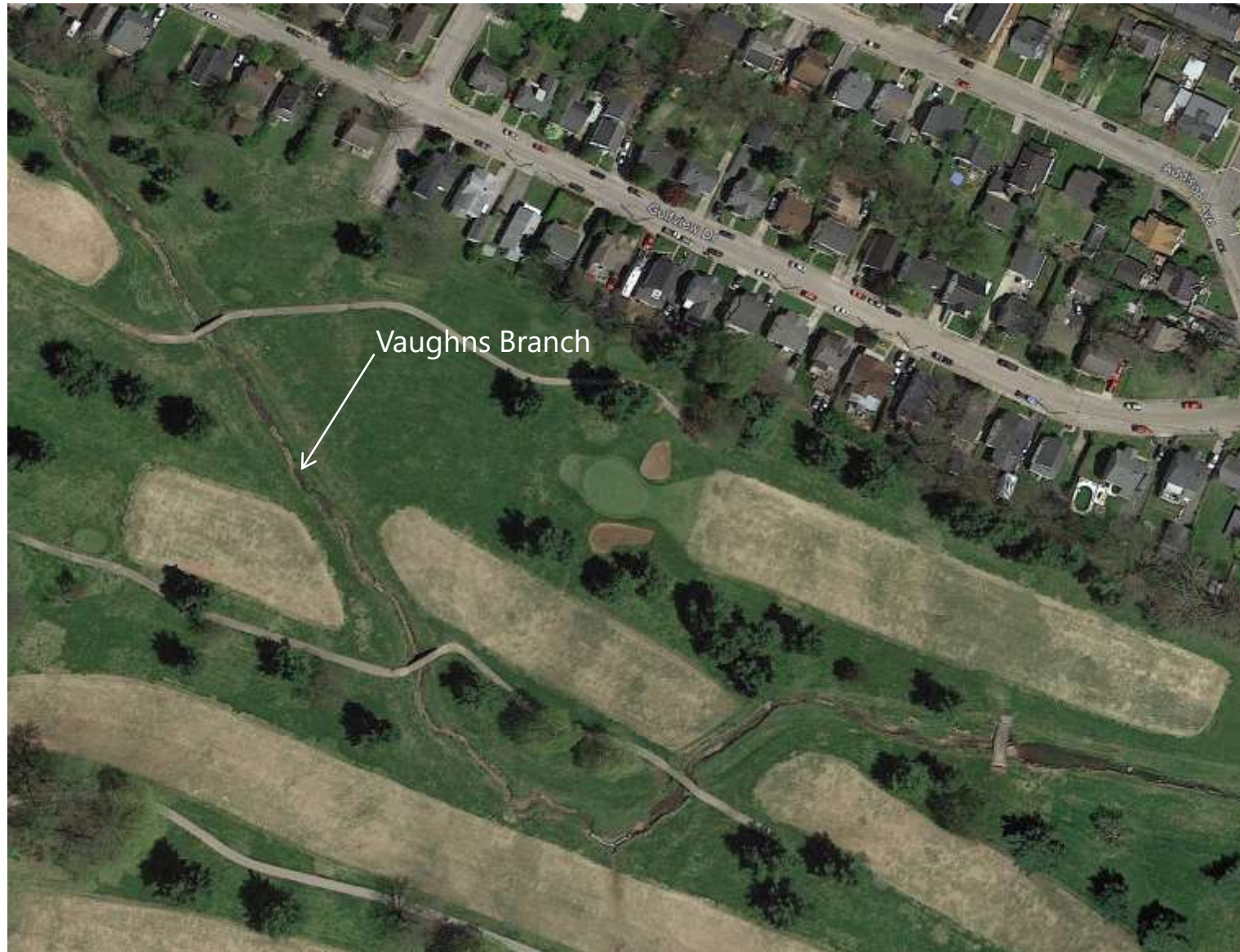


Lower reach was severely incised and had downcut to bedrock.



Sinkhole receives considerable amounts of trash and sediment.

Vaughns Branch



Vaughns Branch Existing Conditions



Upper reach of was overwidened, cut down to bedrock with eroding banks.



Middle reach was transitioning to narrower, more incised stream.

Vaughns Branch Existing Conditions



Lower reach was narrow and incised with eroding banks.



There were two stormwater outlets from adjacent neighborhood.

Challenges

- Site Constraints
- Competing Goals
- Stream Buffer v/s Playable Greens
- Permitting



Design Goals

- Stabilize the Channels
- Eliminate Bank Erosion
- Establish Native Herbaceous Riparian Buffer
- Remove Trash From Sinkhole
- Collect Floatable Trash/Debris From Low Flow/First Flush Events
- Remove Invasive Species
- Improve Aquatic Habitat



Big Elm Tributary Post Construction



Big Elm Tributary Post Construction



Vaughns Branch Post Construction



Vaughns Branch Post Construction



Stormwater Wetlands Post Construction



Lessons Learned

- Sometimes its best to hand over the reigns
- Specifying requirement of contractor experience
- Incorporate No Mow Markers
- StormX culvert assemblies did not work as well as hoped



Summary

- Reduced erosion
- Increased in-stream habitat
- Increased riparian zone
- Aesthetically pleasing
- Enjoyed by golfers




Questions & Answers

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