















**Legend**

-  Project Area Boundary
-  Prop. 1-ft Contours
-  Prop. 18" Pipe
-  Prop. Underdrain
-  Prop. Live Stakes (3' o.c.)
-  Prop. Bare Roots (9' o.c.)
-  Prop. Stormwater Wetland
-  Prop. Wintering Hole
-  Prop. Sediment Forebay
-  Prop. Improvements to Ditch Embankment
-  Prop. Rock Extents
-  Prop. Underdrain Filter
-  Ex. 1-ft Contours
-  Parcels

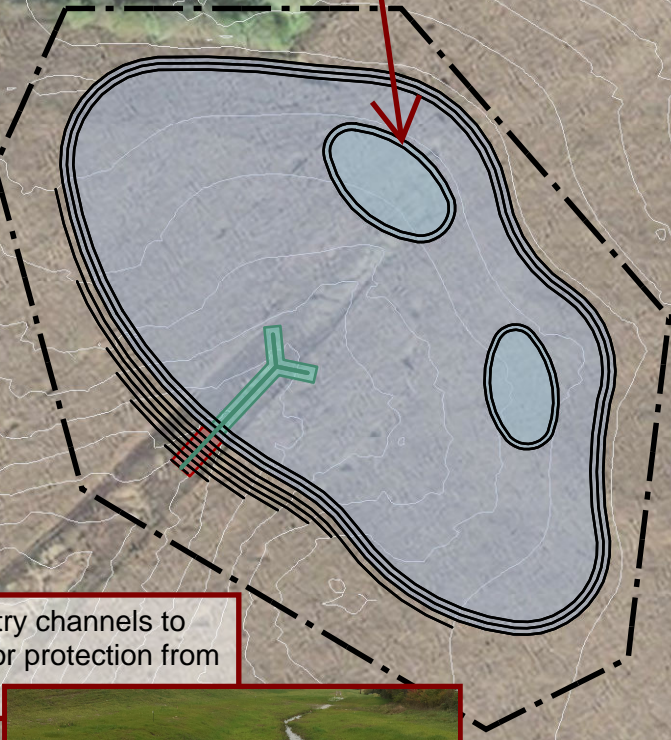
Trees removed for construction of wetland may be re-used within the wetland cell to provide habitat diversity



~5.8 acre-feet of prop. storage on site will intercept flows from agricultural land prior to discharging to an ex. ditch that currently overtops and causes flooding issues for the residents to the south



Prop. sediment forebays ensure long-term functionality of wetlands



Prop. outlets include biofiltration low-flow underdrain to prolong baseflows in the ditch and receiving channel, protected by rock to reduce clogging



Prop. flow entry channels to be armored for protection from erosive flows

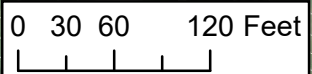


Reforestation to include live stakes at the base of the wetland and bare roots surrounding the grading limits



Prop. wintering holes provide additional habitat for amphibians

~70 feet of ex. embankment between conveyance ditch and neighborhood to be raised with excavated material from prop. wetland to reduce flooding risks



WILLIAMS



**CONCEPTUAL PLAN FOR DEMONSTRATION STORMWATER WETLAND**

State-of-the-art stormwater feature  
to improve water quality, reduce erosion, minimize flooding, and expand habitat  
Warren Co. Engineer and Warren Soil & Water Conservation District

*The proposed concept intercepts drainage from ~42.3 acres and restricts the 100-yr peak discharge from ~223 to ~45 cfs. The remaining (undetained) drainage area to the ditch at Beckett Street contributes ~10.1 acres associated with a 100-year peak discharge of ~50 cfs. The wetlands' reduction in peak flow and delayed timing of the peak runoff reduces the 100-yr peak discharge in the ditch at Beckett Street to ~63 cfs, which is less than the recommended design target provided by Fishbeck in their previous modeling and analysis (i.e. 85 cfs). The concept, conceptual-level quantities, and the apparent low areas of the embankment are based on LiDAR contours. The concept should be revised based on a detailed survey and revised modeling and analysis during the detailed design phase of the project.*

