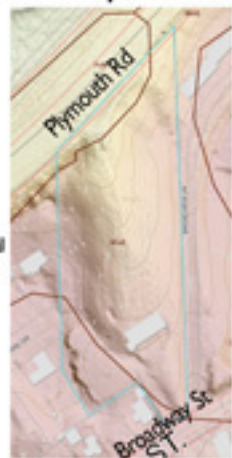


## THE LAND AND ITS HISTORY

The 7 acre lot includes 2 acres of developed land used to house two churches and 5 acres of sloped woodland.



2010 Photo with property line



Topological map with soils



Entrance to path at Plymouth Rd.

Before 1800, the land bordered one of the historic Native American trails into Ann Arbor (now Plymouth Rd).

### FOREST ECOSYSTEMS CIRCA 1800

• North-facing stream valley in Defiance Moraine: Major trees include red ash, black maple, elms, and American basswood while shrub species include: Alternate-leaf dogwood, American black currant, and Nannyberry.

• East- and West-facing moderate to steep slopes: Major species include shagbark hickory, oaks, maples, and black cherry.

The history of the land since 1800 was a mixture of logging, farming, and habitation.

### FOREST HISTORY

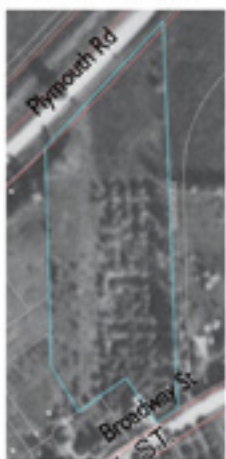
† Circa 1800-1820: Heavy logging

† 1820s: Favorable alluvial areas farmed. Homestead adjacent to Plymouth Rd.

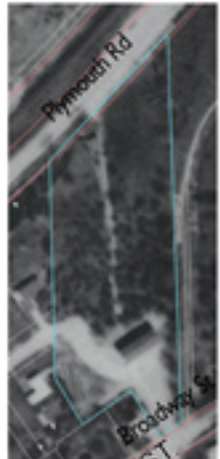
† Circa 1870: Slopes and areas not in cultivation, heavy logging ensued again.

† Circa 1935 - 1946: Parts of area either farmed/grazed and later logged again. Present over-story trees mostly date from this last logging. Original oak, maple, and hickory are joined by new species that include Norway, red, and silver maple, box elder, northern catalpa, white ash, black walnut, white mulberry, pear, American white cedar and flowering dogwood.

(Burton Barnes, 2010)



Farmed: Shown in 1940's Aerial Photo



1968 with Church Building

# ECOSYSTEM RESTORATION AND SOCIOLOGICAL CHALLENGES

## A CASE STUDY OF TWO CHURCHES AND THEIR WILDLIFE HABITAT

ST. AIDAN'S EPISCOPAL AND NORTHSIDE PRESBYTERIAN, ANN ARBOR (WWW.STAIDAN.ORG)

DR. STEPHEN UCHE, THE REV. DR. SUSAN MCGARRY, AND MS. MARIAN LAUGHLIN



Church Sanctuary at 1679 Broadway, Ann Arbor



Walking Trail created in 2005

### ECO-SYSTEM RESTORATION

1966 – Church Built Gardening projects in woods. Chapel project for Eagle Scout project. Rough trail maintained on waste pipeline egress.

### What we have done

2000 – Began work to extract invasive buckthorn and honeysuckle. Yearly plantings of native plants and trees.

2003 – Major work in conjunction with parking lot accessibility project.

- Detention built (two ponds with native grass planting).

- Extraction of invasives for 300 ft. on Southern edge of forest.

- Planting of mature hardwoods and liberation of extensive dogwood glen.

2005 – Major work to develop substantial walking trail connecting Plymouth Rd. with property.

- More invasive tree removal. Invitation to groundcover invasives with the addition of sunlight along the trail.

2008 – Young people survey natural features and apply for National registration as Wildlife Habitat.

2009 – Celebrate Habitat and new trail (Eagle Scout project) accompanied by more invasive species extraction.

- Establish erosion protection in drainage basin.



Invasive Species Removal Project



Hikers enjoying forest surrounded by garlic mustard



Tree protection from deer



Grazing deer - a challenge

2010 – Analysis and Education Presentation by Burton Barnes.

- Study of competing theories for control of invasive species & fostering of native growth.

- 1000 lbs of Garlic Mustard removal in partnership with Stewardship Network - "Garlic Mustard removal challenge."

2011 – Large scale planning of Native saplings with deer protection.

- Drainage improvements to keep the detention system efficient.



Blood-root Introduction



Streambed preparation



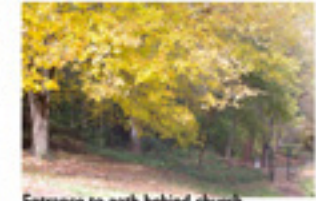
Field Lecture with Burton Barnes

### SOCIOLOGICAL CHALLENGES:

- Competing interests in the property: development, garden beauty, and native restoration.
- Use of property for human enjoyment (trails, spirituality) Vs eco-system preservation.
- Recruiting and Sustaining Volunteer Labor (both churches are small).
- Educating and sustaining eco-system restoration.
- Multiple Stakeholders (two churches, neighbors, 12-step and other social groups meet in the building, e.g. Interfaith Council for Peace and Justice, occasional homeless campers, etc.)
- Loss of neighboring habitats due to development increased pressure from wildlife, especially deer.
- Need for sustained management of the property.



Eco-management volunteer



Entrance to path behind church



Liturgical Celebration in woods

### SUCCESS STRATEGIES

- Appreciation of nature by multiple stakeholders.
- Retreat ministry to allow more people to experience the ambience of the natural setting.
- Assistance from service sororities and fraternities in invasive species extraction.
- Engagement of Eagle Scouts for restoration projects.
- Professional landscape design: Leigh Thurston of Greenscape for detention ponds, Waterscape for streambed, and John Coombs for trail.
- Contributions and dedication of memorial trees.
- Educational growth and commitment of Building and Grounds Committee to eco-system restoration.
- Affiliation with GreenFaith Interfaith Environmental Certification Program. 
- Church sanctuaries' visual access to the Natural Area during worship.
- Education through sermons and study groups.
- Retreat ministry's commitment to natural habitat restoration.
- Partnership with neighbors for work and appreciation.

### CONCLUSION

- Learned long term-nature of eco-system restoration.
- Experienced enhanced congregational commitment to ecological preservation and restoration.
- Needs sustained generational and educational commitment, stakeholder partnerships and appreciation, preservation of natural beauty, neighborhood participation, collaboration with environmental groups, and ecosystem restoration.



Successful Native Plant Introduction