AGENDA EAST GOSHEN TOWNSHIP CONSERVANCY BOARD MEETING October 14, 2020 - 7:00 PM

- 1. CALL TO ORDER / PLEDGE OF ALLEGIANCE / MOMENT OF SILENCE
- 2. APPROVAL OF MINUTES September 9, 2020
- CHAIRMAN'S REPORT
- 4. OLD BUSINESS
 - Keep East Goshen Beautiful Day Recap
 - Clymer's Woods tree maintenance
- 5. SUBDIVISION REVIEW None
- 6. NEW BUSINESS
 - Tree/Shade Resolution
 - November Meeting Dates
- 7. VARIANCES/CONDITIONAL USES None
- 8. BOARD MEMBER CONCERNS
- 9. LIAISON REPORTS
- 10. CORRESPONDENCE None
- 11. DATES OF IMPORTANCE

Oct 15, 2020	Futurist Committee	07:00 pm
Oct 19, 2020	SAC Seminar	07:00 pm
Oct 20, 2020	Board of Supervisors	07:00 pm
Oct 22, 2020	Pipeline Task Force	06:30 pm
Oct 26, 2020	Sustainability Advisory Committee	07:00 pm
Oct 27, 2020	Zoning Hearing Board	07:00 pm
Nov 3, 2020	Election Day – Township Office Closed	
Nov 4, 2020	Planning Commission	07:00 pm
Nov 5, 2020	Park & Rec Commission	07:00 pm
Nov 7, 2020	E-Recycling in Park - Rescheduled to 12/5	
Nov 9, 2020	Municipal Authority	07:00 pm
Nov 10, 2020	Board of Supervisors	07:00 pm
Nov 11, 2020	Township Office Closed	========
Nov 11, 2020	Conservancy Board	07:00 pm

- 12. PUBLIC COMMENT
- 13. ADJOURNMENT

1	DRAFT
2	EAST GOSHEN TOWNSHIP
3	CONSERVANCY BOARD MEETING
4	September 9, 2020
5	
6	The East Goshen Township Conservancy Board held a regularly scheduled meeting on
7	Wednesday, September 9, 2020 at 7:00 p.m. Because of COVID-19 restrictions, the meeting
8	was held via Zoom conferencing. Members in attendance are indicated in BOLD :
9	Chairman, Walter Wujcik
10	Vice Chairman, Sandra Snyder
11 12	Erich Meyer Scott Sanders
13	Dan Flynn
13 14	Leo Sinclair
15	Others present were:
16	Michele Truitt, Township Supervisor
17	Mark Gordon, Zoning Officer
18	Eunice Alexander, Goshen Tree Tenders
19	241100 11011111401, 4001011 1100 10114010
20	Call to Order
21	Walter called the meeting to order at 7:00 p.m.
22	
23	Pledge of Allegiance & Moment of Silence
24	Walter led those present in the Pledge of Allegiance and then asked for a moment of silence
25	to remember our troops, first responders and healthcare personnel.
26	
27	<u>Minutes</u>
28	The minutes of the July 8, 2020 meeting were approved.
29	
30	<u>Chairman's Report</u>
31	None
32	OLD Day to the second of the s
33	Old Business 1. Van Park Carlon Bassettal Bass. This count will be held an Saturday Octaber 2, 2020
34	1. Keep East Goshen Beautiful Day – This event will be held on Saturday October 3, 2020.
35 36	Walter will send a notice to past participants. It will start at 8:00 am. Participants can pick up supplies at the Township Building. Walter will check on getting supplies.
37	up supplies at the Township bunding. Watter win check on getting supplies.
38	2. Fall Planting – Eunice Alexander asked about using tree vitalizer for the trees. She also
39	asked about using or starting a Tree Tenders group.
40	ablea about asing of starting a free femacio group.
41	3. Clymer's Woods tree maintenance - Dan sent an email and pictures with weed whacking
42	damage to some of the trees. They need awareness to be careful with weed whackers. Mark
43	Miller is handling this. Conservancy Board members will get together to mulch the trees.
44	Eunice mentioned that Tree Tenders will assist. The date is to be determined.
45	
46	New Business
47	<u>2021 Budget - The</u> budget was discussed. The Board will request the same as 2020 Budget.
48	
49	Liaison Report
50	1. Municipal Authority – Walter gave an update on the Municipal Authority which meets
51	next Monday.

CB 9-9-20 draft 1

1	2. Board of Supervisors – Michele gave an update from the Board of Supervisors.
2	
4	Correspondence
5	PECO Green Grant was discussed. Some potential projects to consider were:
6	1. Supplee Valley
7	2. Paoli Pike Trail
8	3. Reservoir Road Park
9	4. Hershey Mill Dam Park
10	The Board discussed the Supplee Valley which suffered damage to trees due to a beaver
11	dam.
12	
13	Public Comment
14	None
15	
16	Adjournment
17	There being no further business, Sandy moved to adjourn the meeting. Erich seconded the
18	motion. The meeting was adjourned at 7:48 p.m. The next meeting will be held on
19	Wednesday October 14, 2020 at 7:00 pm.
20	
21	Respectfully submitted,
22	
23	Duth Viefer December Country
24	Ruth Kiefer, Recording Secretary
25	Notes from Mark Gordon, Zoning Officer

CB 9-9-20 draft 2

Memo

Date: October 8, 2020

To: Conservancy Board Members

From: Susan D'Amore

Re: November Meeting Date

Hello,

The next Conservancy Board meeting is scheduled for November 11, 2020. This a Township holiday and the office is closed. There will be no Township staff available to host the meeting on Zoom. Please choose from the following options. All meeting times are 7:00 pm. Please advise on what you choose. Thanks.

- 1. Wednesday, November 11 Someone from the CB will need to host the Zoom Meeting
- 2. Monday, November 16
- 3. Wednesday, November 18
- 4. Thursday, November 19

BOARD OF SUPERVISORS

EAST GOSHEN TOWNSHIP

CHESTER COUNTY 1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199



October 2, 2020

Dear Property Owner:

The purpose of this letter is to inform you that Robert Jordan, owner of a vacant parcel at 1631 E. Strasburg Rd., has applied for a Zoning Variance requesting relief from the zoning ordinance. Mr. Jordan is requesting dimensional relief from the steep slopes requirement of the ordinance; §240-25.C(5)(d)[1], §240-25.C(5)(d)[2] and, §240-40.A(1)(b). Mr. Jordan proposes to construct a new single family home on the property and the proposed plan will require disturbance of steep slopes on the lot.

Pursuant to Township policy, property owners within 1000 feet of the subject property are notified of Zoning Variance applications.

This application will be discussed during the meetings outlined below and is subject to change without further written notice to surrounding properties:

Wednesday October &, 2020 - Planning Commission meeting (7:00 pm)

<u>Tuesday October 20, 2020</u> - Board of Supervisors meeting (7:00 pm)

Tuesday October 27, 2020 - Zoning Hearing Board (7:00 pm) (Zoning Hearing)

Due to COVID -19 all township meetings and hearings are being held virtually via video / telephone conference. These meetings will be conducted remotely via Zoom teleconference. Members of the public can participate via telephone and view the teleconference on YouTube. Meeting access information can be found on the Township website at https://eastgoshen.org/ under the Latest News posts.

The public is welcome and encouraged to attend and participate in these meetings. The application information is available for public inspection at the Township Building. Please call the Township staff at 610-692-7171 if you need assistance finding the meeting access information, or email me at mgordon@eastgoshen.org if you have any questions or need additional information.

Sincerely

Mark A. Gordon

Township Zoning Officer

Cc: All Township Authorities, Boards and Commissions

Memorandum

East Goshen Township 1580 Paoli Pike West Chester, PA 19380

Voice: 610-692-7171 Fax: 610-692-8950

E-mail: mgordon@eastgoshen.org

Date: 10/13/2020

To: Conservancy Board

From: Mark Gordon, Township Zoning Officer

Tree and Street Tree Resolution Re:

Conservancy Board Members,

In February, we discussed the Tree Resolution. I have added the Eastern Red Cedar to the list and American hornbeam, a native species that I noticed was missing.

Adding weeping willow to the list was discussed, however it is not specifically native to PA. The Black willow is native and I can it if the CB agrees it is appropriate.

We also discussed having an invasive tree list; however, in 2015 the CB decided to define "Invasive Trees" in the ordinance.

§205-7 Definitions

INVASIVE TREES

designated by the Pennsylvania Department of Trees Conservation and Natural Resources as being invasive trees. [Added 4-7-2015 by Ord. No. 129-E-2015]

Having this definition eliminates the need to amend the resolution when new species are added to the list.

EAST GOSHEN TOWNSHIP CHESTER COUNTY, PENNSYLVANIA

RESOLUTION NO. 20152020-20

A RESOLUTION OF THE BOARD OF SUPERVISORS OF EAST GOSHEN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA, ADOPTING A LIST OF RECOMMENDED SPECIES OF TREES AND STREET TREES THAT MAY BE PLANTED WHEN REQUIRED BY THE PROVISIONS OF CHAPTER 205 OF THE EAST GOSHEN TOWNSHIP CODE, TITLED "SUBDIVISION AND LAND DEVELOPMENT".

BE IT RESOLVED THAT the Board of Supervisors hereby approves the following list of tree and street tree species that may be used to satisfy the requirements in Chapter 205 of the East Goshen Township Code, Sections 205-61 and 205-62:

Deciduous canopy trees.

- 1. Acer rubrum, saccaharum (maple: red, sugar).
- Catalpa speciosa (catalpa).
- 3. Larix laricina (tamarack).
- 4. Liquidambar styracifera (sweet-gum).
- 5. Liriodendron tulipifera (tulip tree).
- 6. Magnolia acuminata (cucumber tree).
- 7. Nyssa sylvatica (sourgum, blackgum or tupelo).
- 8. Populus deltoides (poplar).
- 9. Quercus coccinea, imbricaria, phellos, rubra (oak: scarlet, laurel, willow, red).
- 10. Tilia americana, cordata (linden: american, littleleaf).

Understory trees.

- Amelanchier species (serviceberry or shadbush).
- 2. Asimina triloba (pawpaw).
- 3. Betula lenta (cherry or sweet birch).
- 4. Betula nigra (river birch).
- 5. Betula papyrifera (paper birch).
- 6. Carpinus caroliniana (American hornbeam)
- 7. Celtis occidentalis (hackberry).
- 8. Cercis canadensis (redbud).
- 9. Chionanthus virginicus (fringe tree).
- 10. Cornus florida, alternifolis (dogwood: flowering, pagoda).
- 11. Crataegus species (hawthorns).
- 12. Diospyros virginiana (common persimmon).
- 13. Halesia carolina (carolina silverbell).
- 14.- Juniperous virginiana (red cedar / eastern red cedar / eastern juniper)

- 15. Magnolia virginiana (sweetbay and other magnolias).
- 16. Malus species (crabapple).
- 17. Oxydendron arboreum (sourwood).
- 18. Sassafras albidum (sassafras).
- 19. Stewartia ovata f. grandiflora (mountain stewartia).
- 20. Styrax obassia (fragrant snowbell).
- 21. Viburnum prunifolium (black haw).
- 22. Abies concolor (white or concolor fir).
- 23. Pinus strobus fastigiata ('Fastigiata' Eastern White Pine).
- 24. Picea glauca (White Spruce)
- 25. Picea abies (Norway Spruce)

Street tree varieties.

- 1. Catalpa speciosa (northern catalpa).
- Celtis occidentalis (hackberry).
- 3. Diospyros virginiana (common persimmon).
- 4. Carpinus betulus 'Fastigiata' (columnar hornbeam).
- 5. Carpinius betulus 'Frans Fontaine' (columnar hornbeam).
- 6. Carpinus caroliniana (American hornbeam).
- Acer Campestre (Hedge maple).
- 8. Acer Griseum (Paperbark maple).
- 9. Quercus imbricaria (laurel or shingle oak).
- 10. Quercus phellos (willow oak).
- 11. Tilia cordata (littleleaf linden).
- 12. American elm cultivars, ('Valley Forge' and 'New Harmony').

RESOLVED AND ADOPTED this 20th 1st day of January December, 2015 2020.

ATTEST:	EAST GOSHEN TOWNSHIP BOARD OF SUPERVISORS



BLACK WILLOW SALIX NIGRA Marsh.

Plant Symbol = SANI

Contributed by: USDA NRCS Plant Materials Center, Manhattan, Kansas & Kansas State University, Forestry Research



Photo Courtesy of Philip Barbour, Wildlife Biologist, USDA NRCS, Madison, Mississippi

Alternate Names

American, Brittle, Champlain, Dudley, Gooding, gulf black, puzzle, rough American, scythe-leaf, scytheleaved, southwestern black, swamp, tall black, Texas black, and western black willow; sauce, saule, saule noir, sauz, swamp walnut, weide, wilg, willow, and willow catkins

The name willow derives from the Old English *wilwe*. The botanical name *Salix* was the name given by the ancient Romans.

Uses

Ethnobotanic: The ancient Greeks knew the therapeutic values of willow. Tea made from willow bark was used for stiff joints and rheumatic pains.

By the 1840's, chemists had isolated salicylic acid from willow and found it produced marked antipyretic (feverreducing) and analgesic (pain-killing) effects and

Plant Fact Sheet

"striking relief of acute articular rheumatism." Modern aspirin (acetylsalicylic acid) is a synthetic product. Salicylic acid got its name from Salix.

Industry: Most black willow lumber is used for shipping boxes.

Wildlife: The willows are among the first plants to provide honey bees, after long winters, with nectar and pollen. Domestic grazing animals browse in willow thickets. Elk and beaver browse on willow leaves in the summer and willow twigs in the winter.

Ornamental: Black willow can be planted as an ornamental where a fine-textured shade tree is desired. It will tolerate dry soils with reduced vigor.

Conservation: One of the greatest services of the willows is as a soil-binder. Growing along the banks of countless streams, their fibrous roots help to prevent the soil from being washed away.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values.

Description and Adaptation

A member of the Willow Family (Salicaceae), black willow is a small to medium-sized tree 30 to 60 ft high and about 14 inches in diameter with a broad, irregular crown and a superficial root system.

Leaves are simple, alternate, deciduous, narrow, lance-shaped, with tapered bases, rounded base, finely toothed margin, blade yellow-green on both sides, with a few small hairs on the lower surface; petiole slender. Flowers of black willow: male and female catkins on separate trees. Catkins are 4-5 cm long, on ends of leafy shoots, many small, yellow-green flowers without petals. Twigs are light-red, slender, and flexible. Buds narrow, conical, orange-brown; leaf scars narrow, crescent shaped; broad, flat, often shaggy ridges; pith pale brown, small. The bark is dark gray-brown to nearly blackish, divided into deep fissures separating thick, interlacing, sometimes scaly ridges.

Black willow is adapted wherever ample soil moisture is found. Black willow grows best where the average annual rainfall is 51 inches, of which 20 inches falls during the growing season, April through August.

The estimated life span for black willow averages 65 years with a range of 40 to 100 years.

Wood characteristics: The wood is of moderately light to light density, moderately soft. It does not splinter easily, which makes excellent wood for toys, crates, and barn floors.

Distribution: Black willow ranges from New Brunswick to Manitoba, south to Florida and Texas.



Black willow distribution from USDA-NRCS PLANTS Database.

Habitat: This species is usually found on moist or wet soils along banks of streams, lakes, swamps around farm ponds, and pasture sloughs.

Establishment

Black willow is easily established from cuttings. Stringent requirements of seed germination and seedling establishment limit black willow to wet soils.

Management

Stands of black willow can stagnate if not periodically thinned.

Pests and Potential Problems

A number of insect species attack black willow but few cause serious damage, such as, forest tent caterpillar, cotton wood leaf beetle, willow sawfly, stem borers, and twig borers.

Seeds and Plant Production

Good seed crops occur almost every year with only a few interspersed poor crop years. The seeds are widely disseminated by wind and water. Willow seed must be collected as soon as it ripens and sown immediately. Stem cuttings are highly desirable to propagate trees.

Fire Effects

Black willow is very susceptible to fire. Hot fires can kill entire stands of willows. Black willow will sprout at the base following fire.

Cultivars, Improved, and Selected Materials (and area of origin) 'Webb' compact willow is a "strikingly different vase-shaped form of black willow." This unusual form was found by Mr. Charles Webb in Madison County, Florida.

Control

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. USDA, NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

Prepared By

John M. Row USDA NRCS, Manhattan Plant Materials Center, Manhattan, Kansas 66502

Wayne A. Geyer Forestry Division, Kansas State University, Manhattan, Kansas 66506

Published: May, 2010

Edited: For more information about this and other plants, please contact your local NRCS field office or Conservation District http://www.nrcs.usda.gov/, and visit the PLANTS Web site http://plants.usda.gov/ or the Plant Materials Program Web site http://plant-materials.nrcs.usda.gov/

Invasive Plant Fact Sheets

For help in identification of invasive plants, treatment, and protection suggestions for your property, explore the DCNR fact sheets below. DCNR has deemed these trees, shrubs, vines, herbs, and aquatic plants to be invasive on state lands. The species listed are managed by DCNR staff.

Trees

- Amur maple (PDF), Acer ginnala, is a small ornamental tree that spreads by numerous winged seeds.
- Norway maple (PDF), Acer platanoides, a common street and lawn tree that frequently escapes cultivation.
- Sycamore maple (PDF), Acer pseudoplatanus, a tall Eurasian tree invading urban and suburban woods in southern PA.
- European black alder (PDF), Alnus glutinosa, is often found along streams and other wet areas.
- <u>Tree-of-heaven (PDF)</u>, Ailanthus altissima, grows throughout PA. Another immigrant from China introduced as an ornamental.
- Mimosa (PDF), Albizia julibrissin, has escaped cultivation to invade roadsides and woodland edges in eastern PA.
- <u>Japanese angelica tree (PDF)</u>, Aralia elata, has sharp spines on the trunk and resembles our native devils walking stick.
- Paper mulberry (PDF), Broussonetia papyfera, is a common, small ornamental tree from Asia.
- White mulberry (PDF), Morus alba, is a fast-growing species that will hybridize with our native red mulberry, Morus rubra.
- <u>Princess-tree</u>, <u>Empress-tree</u> (<u>PDF</u>), *Paulownia tomentosa*, imported from China this purple-flowered tree has spread across southern PA by winged seeds.
- <u>Cork tree (PDF)</u>, *Phellodendron amurense*, *P. japonicum*, *P. lavallei*, these Asian trees are problematic in urban and natural areas in southeastern PA.
- <u>Callery or bradford pear (PDF)</u>, *Pyrus calleryana*, has established populations in fields and hedgerows in southeastern PA.
- <u>Bee-bee tree (PDF)</u>, *Tetra dium daniellii*, is an uncommon landscape tree that is slowly spreading in south-central and southeastern PA.
- Siberian elm (PDF), Ulmus pumila, a fast-growing tree reaching 50-70 feet high.

Shrubs

 <u>European and Japanese barberries (PDF)</u>, Berberis vulgaris and B. thunbergii form dense thickets in woodlands, wetlands, and meadows.

- <u>Butterfly bush (PDF)</u>, <u>Buddleja davidii</u>, has numerous cone-shaped bunches of purple flowers that attract butterflies.
- Russian olive and Autumn olive (PDF), Elaeagnus angustifolia and E.umbellata, imported from Asia, have become serious weeds in southern PA pastures and other open ground.
- <u>Winged euonymus or Burning-bush (PDF)</u>, *Euonymus alatus*, a shrub from China and Japan imported for its bright purple-red fall color and frequently found along streams and in woods mostly in southern PA.
- Chinese and Shrubby bushclovers (PDF), Lespedeza cuneata and L. bicolor, are semi-woody shrubs that readily invade open and disturbed habitats.
- <u>Privets (PDF)</u>, Ligustrumspecies imported from Europe and Asia are aggressive, thicket forming shrubs.
- Shrub honeysuckles (PDF), five Lonicera species that rapidly invade and dominate field edges and pastures.
- Common buckthorn (PDF) and Glossy buckthorn (PDF)
 , Rhamnus cathartica and R. frangula (syn. Frangulaalnus). Small trees or shrubs to 20' high with yellow sapwood and pink to orange heartwood.
- <u>Jetbead (PDF)</u>, *Rhodotyposscandens*, is a deciduous shrub with clusters of small black fruits and white four-petaled flowers.
- Multiflora Rose (PDF), Rosa multiflora, this import from Asia has become a noxious weed in PA field, pastures and woodlands.
- <u>Wineberry (PDF)</u>, *Rubusphoenicolasius*, imported from Asia for its raspberry-like fruit and now common on roadsides and in woods and thickets.
- <u>Japanese spiraea (PDF)</u>, Spiraea japonica, was imported from Japan for its pink flowers. It escapes from cultivation to forest openings and meadows.
- <u>Doublefile viburnum (PDF)</u>, *Viburnum plicatum*; <u>Linden viburnum (PDF)</u>, *V.dilataum*; and
 <u>Siebold viburnum</u> (PDF), *V.sieboldii*, are Asian shrubs with abundant fruits that are spread by birds.
- Guelder rose (PDF), Viburnumopulus, a tall shrub with maple-like leaves imported from Eurasia and escaped to woods fields and roadsides.

Vines

- Chocolate Vine (PDF), Akebiaquinata, a woody twining vine from Asia that has escaped cultivation
 to disturbed woods in southeastern PA.
- <u>Porcelain-berry (PDF)</u>, Ampelopsis brevipedunculata, a deciduous, woody, perennial vine in the grape family imported from Asia.
- Oriental bittersweet (PDF), Celastrus orbiculatus, a twining woody vine imported from Asia and rapidly
 replacing the native bittersweet in the woods.
- <u>Wintercreeper (PDF)</u>, *Euonymus fortunei*, is an evergreen woody vine that aggressively invades forest edges and openings.
- English ivy (PDF), Hedera helix, is a common evergreen climbing vine in the landscape that can smother native vegetation.

- <u>Japanese hops (PDF)</u>, Humulus japonicus, is a prickly vine that invades moist, sunny areas.
- <u>Japanese honeysuckle (PDF)</u>, Lonicera japonica, a common ornamental vine from Asia now an abundant weed in roadside thickets, woods, and fields across southern PA.
- Mile-a-minute weed (PDF), Persicaria perfoliata, a slender annual vine with reflexed prickles was
 accidentally introduced from Asia with nursery stock and now a noxious weed in PA.
- <u>Kudzu (PDF)</u>, *Pueraria lobata*, a vigorous half-woody vine introduced from Asia for ornament, forage and erosion control and now an uncommon but officially noxious weed in southeastern PA.
- <u>Common and Bigleaf periwinkle (PD</u>F), *Vinca minor* and *V. major*, are evergreen, ornamental groundcovers that can form thick mats, even under dense tree canopy.
- <u>Black and Pale swallow-wort (PDF)</u>, *Vincetoxicum nigrum* and *V. rossicum*, are twining vines that can dominate old fields and poison livestock.
- <u>Chinese and Japanese wisteria (PDF)</u>, *Wisteria sinensis* and *W. floribunda*, are long-lived woody vines with bright purple flowers that can out-compete and smother native vegetation.

Grasses

- <u>Small carpetgrass (PDF)</u>, *Anthraxon hispidus*, is native to Asia. It is currently found in a few counties in southern PA, usually alongside invasive stiltgrass.
- <u>Cheatgrass and Poverty brome (PDF)</u>, Bromus tectorum and B. sterilis, accidentally introduced from Europe in ballast soil or impure wheat seed shipments. A serious agricultural weed in the Midwest and western states.
- Common velvet grass (PDF), Holcus lanatus, introduced as early as the 17th Century in imported
 pasture seed.
- <u>Japanese stiltgrass (PDF)</u>, *Microstegium vimineum*, introduced from tropical Asia in packing material and spreading through moist areas open woods and clearings across southeastern PA and probably elsewhere.
- <u>Chinese silvergrass (PDF)</u>, *Miscanthus sinensis*, is a tall bunched grass that spreads through vigorous roots and rhizom es.
- Wavyleaf Basketgrass (PDF), Oplismenus undulatifolius, is a fast-growing, creeping grass.
- Reed canary grass (PDF), Phalaris arundinacea, forms dense monocultures in wet habitats that disrupt waterways and degrade habitat for native wildlife.
- <u>Common reed (PDF)</u>, *Phragmites australis*, a very large perennial grass, forms extensive colonies in wetlands. The scattered native American populations are being replaced by the vigorous European subspecies.
- Golden bamboo (PDF), Phyllostachys aurea, is a very tall grass with round, hollow stems that spreads
 rapidly via its underground rhizomes.
- Rough bluegrass (PDF), Poa trivialis, is a non-descript grass that out-competes native grasses.
- Ravenna grass (PDF), Saccharum ravennae, is also known as hardy pampas grass. It grows up to 10 feet tall and quickly colonizes wet habitats.

- <u>Tall fescue (PDF)</u>, *Schedonorus arundinaceus*, is a very common cool season perennial grass that adapts to a variety of conditions and crowds out native vegetation.
- Shattercane (PDF), Sorghum bicolor, was imported from Africa as a forage crop but is now a noxious weed in Pennsylvania.
- <u>Johnsongrass (PDF)</u>, Sorghumhalepense, is native to the Mediterranean region. It is designated as a noxious weed in Pennsylvania.

Herbs

- Goutweed (PDF), Aegopodium podagraria, imported from Eurasia and frequently found in fields, thickets, woods and roadsides throughout PA.
- <u>Garlic-mustard (PDF)</u>, *Alliaria petiolata*, a weed of shady moist spots in suburban gardens, woods and floodplains throughout PA; introduced from Europe.
- <u>Wild chervil (PDF)</u>, *Anthriscus sylvestris*, is a member of the carrot family that competes with native plants and carries a virus that can infect some vegetable crops.
- Narrowleaf bittercress (PDF) , Cardamine impatiens, is a member of the mustard family native to Europe.
- Musk thistle (PDF), Carduus nutans, is also known as nodding thistle from the way the flowers droop
 once mature.
- <u>Black, Brown, and Spotted knapweeds (PDF)</u>, *Centaurea nigra, C. jacea, C. stoebemicranthos*, have pink to purple flowers that resemble small pineapples.
- Greater celandine (PDF), Chelidonium majus, is a four-petaled yellow flower from Europe that is poisonous.
- <u>Canada thistle (PDF)</u>, *Cirsium arvense*, imported from Eurasia (not Canada) now common and noxious weed in fields pastures and roadsides throughout PA.
- Bull thistle (PDF), Cirsium vulgare, is a large-flowered thistle with long spines and abundant seeds.
- <u>Poison hemlock (PDF)</u>, *Conium maculatum*, was brought to U.S. gardens from Europe in the 1800s it now invades native plant communities in riparian woodlands, open floodplains and stream banks.
- <u>Crown-vetch (PDF)</u>, Coronilla varia, a sprawling perennial native to southern Europe planted extensively
 along highways. It spreads into open, grassland and prairie habitats.
- <u>Jimsonweed (PDF)</u>, *Datura stramonium*, is a state noxious weed that is highly toxic and frequently found in cultivated fields and other disturbed sites.
- <u>Smallflower and hairy willow herb (PDF)</u>, *Epilobium parviflorum* and *E.hirsutum* are ornamental perennials with showy, rose-colored flowers that can quickly form dense stands.
- Goats rue (PDF), Galega officinalis, is a state and federal noxious weed that is very poisonous to livestock.
- Orange day-lily (PDF), Hemorocallis fulva, is a very hard perennial that grows in abundance along roadsides and old home sites.
- Giant hogweed (PDF), Heracleum mantegazzianum, 15 feet tall member of the carrot family introduced from Eurasia. Its sap can cause blisters so it is listed as a federal and PA noxious weed.

- <u>Dame's-rocket (PDF)</u>, Hesperis matronalis, introduced from Europe to American gardens, now common in low woods floodplains and roadside ditches throughout PA.
- Yellow flag iris (PDF), Iris pseudacorus, is a showy ornamental plant commonly found in wetlands, along pond edges, and other wet areas where it can dominate.
- Moneywort (PDF), Lysimachia nummularia, goes by many common names and was introduced into the U.S. from Europe as an ornamental groundcover.
- <u>Purple loosestrife (PDF)</u>, Lythrum salicaria, a European perennial with a woody base that has escaped gardens and destroyed large areas of waterfowl habitat by dominating wetlands and excluding all other plant life.
- <u>Star-of-Bethlehem (PDF)</u>, *Ornithogalum nutans* and *O. umbellatum*, garden bulbs from Europe that escape to infest lawns and roadsides.
- <u>Japanese pachysandra (PDF)</u>, *Pachysandra terminalis*, is an evergreen perennial groundcover that can spread from cultivation into natural areas if left uncontrolled.
- Wild parsnip (PDF), Pastinaca sativa, a European import now a widespread and abundant weed of roadsides throughout PA.
- Beefsteak plant (PDF), Perilla frutescens, a member of the mint family introduced from India now occasionally found in moist shaded roadsides and woods.
- <u>Bristled knotweed (PDF)</u>, *Persicaria longiseta*, is an annual plant from Asia that can dominate wet, disturbed habitats., Persicaria longiseta, is an annual plant from Asia that can dominate wet, disturbed habitats.
- <u>Japanese and Giant knotweed (PDF)</u>, *Fallopia japonica* and *F. sachalinensis*, are extremely difficult weeds to control. Imported from Japan they dominate stream and river banks throughout PA.
- Lesser celandine (PDF), Ranunculus ficaria, an aggressive weed in wetlands imported from Eurasia.

Aquatic Plants

- <u>Carolina fanwort (PDF)</u>, Cabomba caroliniana, is a submerged, rooted plant native to the southeastern
 U.S. and sold for aquariums.
- <u>Didymo (PDF)</u>, *Didymosheniageminate*, is a microscopic alga called a diatom. It can form dense mats
 that smother stream beds and native vegetation.
- <u>Brazilian water-weed (PDF)</u>, *Egeria densa*, is a popular aquarium plant that can grow vigorously and choke out native vegetation once it reaches ponds, lakes and other waterbodies.
- Hydrilla (PDF), Hydrillaverticillata, is a submerged aquatic plant that resembles several other aquatic
 plants, making ID difficult.
- <u>Floating Primrose-willow (PDF)</u>, <u>Ludwigia peploides ssp. glabrescens</u>, is indigenous to slow-moving waters of the southeastern U.S. now found in across southern PA.
- Parrot feather watermilfoil (PDF), Myriophyllum aquaticum, is an aquarium plant native to South America that can form dense mats in PA lakes and ponds.
- <u>Eurasian Water-milfoil (PDF)</u>, *Myriophyllum spicatum*, a common an abundant Eurasian invader of lakes and rivers throughout PA.

- <u>Curly pondweed (PDF)</u>, *Potamogeton crispus*, an aggressive European weed common in lakes, ponds and streams.
- Water-chestnut (PDF), Trapanatans, a locally abundant Eurasian invader of ponds and lakes.
- <u>Narrow-leaved cattail (PDF)</u>, *Typhaangustifolia*, is from Europe and difficult to visually distinguish from our native cattail.
- <u>Hybrid cattail (PDF)</u>, *Typhaxglauca*, a cross between narrow-leaved cattail and native common.