

Regulatory Analysis Form

(Completed by Promulgating Agency)

INDEPENDENT REGULATORY
REVIEW COMMISSION

(All Comments submitted on this regulation will appear on IRRC's website)

(1) Agency

Department of Conservation and Natural Resources

(2) Agency Number: 7B-8

IRRC Number: 3184

2011 NOV - 7
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(3) PA Code Cite: 17 Pa. Code Chapter 45

(4) Short Title: Conservation of Pennsylvania Native Wild Plants

(5) Agency Contacts (List Telephone Number and Email Address):

Primary Contact: Rebecca H. Bowen, Chief, Ecological Services, Bureau of Forestry, Department of Conservation and Natural Resources, P.O. Box 8552, Harrisburg, PA 17105-8552; 717-787-3444; rebbowen@pa.gov, or contact RA-Ch45WildPlants@pa.gov

Secondary Contact: Stephen Ekema-Agbaw, Assistant Counsel, Office of Chief Counsel, Department of Conservation and Natural Resources, P.O. Box 8767, Harrisburg, PA 17105; 717-772-4171; sekema@pa.gov

(6) Type of Rulemaking (check applicable box):

- Proposed Regulation
 Final Regulation
 Final Omitted Regulation

- Emergency Certification Regulation;
 Certification by the Governor
 Certification by the Attorney General

(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)

This rulemaking proposes to amend 17 Pa. Code Chapter 45 by doing the following: 1) updating the classification lists of native wild plants; 2) updating the scientific and common names of certain native wild plants; and 3) updating the reference source that the DCNR uses for the names of native wild plants.

Regarding updates to the classification lists of native wild plants, this rulemaking proposes to amend the following classification lists: Pennsylvania Extirpated (§ 45.11); Pennsylvania Endangered (§ 45.12); Pennsylvania Threatened (§ 45.13); Pennsylvania Rare (§ 45.14); and Tentatively Undetermined (§ 45.21).

This rulemaking proposes to amend the classification lists in the following ways: 1) adding plants that are currently unclassified, to a classification list; 2) reclassifying plants already on a classification list, to a new classification; and 3) removing plants from the classification lists altogether (declassifying them).

(8) State the statutory authority for the regulation. Include specific statutory citation.

This rulemaking is authorized by the following statutes:

Section 7 of the Wild Resource Conservation Act (WRCA) (32 P.S. § 5307);
Section 305(a)(9) of the Conservation and Natural Resources Act (71 P.S. § 1340.305(a)(9)); and
Section 313(g) of the Conservation and Natural Resources Act (CNRA) (71 P.S. § 1340.313(g)).

The WRCA provides “the Department of Environmental Resources shall...conduct investigations on wild plants in order to ascertain information relating to other biological and ecological data to classify plants and to determine management measures necessary for their continued ability to sustain themselves successfully.” (32 P.S. § 5307(a)). “On the basis of such determinations, the Environmental Quality Board shall issue regulations not later than two years from the effective date of this act” (referring to the WRCA). “The Environmental Quality Board may add or delete species as conditions change and may modify regulations to reflect the changing environment.” (32 P.S. § 5307(c)).

The CNRA transfers to the DCNR “the powers and duties vested in the [now abolished] Department of Environmental Resources” (the DCNR’s predecessor in interest), by the WRCA (71 P.S. § 1340.305(a)(9)), and “the powers and duties previously vested the Environmental Quality Board, by sections 7, 8, and 9” of the WRCA (71 P.S. § 1340.313(g)).

(9) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation as well as, any deadlines for action.

This rulemaking is not mandated by any federal or state law; instead, Section 7 of the WRCA authorizes the DCNR to modify its native wild plant regulations to reflect the changing conditions of the environment (32 P.S. § 5307(c)).

The provisions of 17 Pa. Code Chapter 45 have been in effect and unchanged since 1988. In the intervening years, the Commonwealth’s native wild plant populations have experienced significant changes due to environmental and economic factors. Additionally, new technology has enhanced the Department’s ability to accurately research and classify the Commonwealth’s native wild plant species. For these reasons, the Department proposes to amend 17 Pa. Code Chapter 45.

The DCNR found no relevant state or federal court decisions concerning amendments to the Commonwealth’s native wild plant classifications.

(10) State why the regulation is needed. Explain the compelling public interest that justifies the regulation. Describe who will benefit from the regulation. Quantify the benefits as completely as possible and approximate the number of people who will benefit.

The Department needs to promulgate this rulemaking to update the classifications of Pennsylvania’s native wild plants.

The provisions of 17 Pa. Code Chapter 45 have been in effect and unchanged since 1988. In the intervening years, the Commonwealth’s native wild plant populations have experienced significant changes due to environmental and economic factors. Additionally, new technology has enhanced the Department’s ability to accurately research and classify the Commonwealth’s native wild plant species. For these reasons the current classification lists of native wild plants are inaccurate and out-of-date, thereby leaving the Commonwealth’s native wild plant populations more vulnerable.

The legislature enacted the WRCA to enhance the protection of native wild plants and non-game animals in Pennsylvania. The WRCA requires the DCNR to conduct investigations on native wild plants in order to ascertain information relating to population, distribution, habitat needs, limiting factors and other biological

and ecological data. The DCNR then uses this data to classify native wild plants and determine how to best manage and protect them.

The DCNR has collected a plethora of data on native wild plant populations in Pennsylvania since 1988 and has prepared a list of plant species that need to be classified, reclassified or declassified, based on population size, distribution, and habitat needs, across the Commonwealth. The DCNR proposes this rulemaking to update the classifications of Pennsylvania's native wild plant species, pursuant to its new data.

There is a compelling public interest in maintaining accurate and up-to-date classifications of Pennsylvania's native wild plants, which justifies this rulemaking. The WRCA requires the DCNR to maintain an accurate list of Pennsylvania's native wild plants, classifying them based on rareness and their ability to sustain populations throughout the Commonwealth, thereby enhancing the protection of Pennsylvania's native wild plants. This rulemaking thus satisfies a legal duty to the citizens of Pennsylvania and helps to protect Pennsylvania's native wild plants by ensuring that the DCNR and other conservation groups are targeting the appropriate plant species in their conservation efforts.

State, county, and municipal conservation planning officials, conservation groups, and other organizations concerned with the welfare of the environment will benefit from this rulemaking, because it more accurately represents the plant species in need of the most protection. The updated plant classifications will better inform the assessment of planning, development, and conservation activities by these groups. For example, the Pennsylvania Department of Environmental Protection (DEP) issues approximately 16,000 environmental permits annually; the DEP relies on the plant species data being updated by this rulemaking as part of making each of its permitting decisions.

Finally, millions of citizens throughout the Commonwealth will benefit from this rulemaking by having access to a more accurate representation of native plant species that need protection. Moreover, this rulemaking supports the Commonwealth's constitutional mandate that public natural resources be conserved and maintained for the benefit of all people (Pa.Const. Art. I, § 27).

(11) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulations.

This rulemaking is not more stringent than federal standards because it covers a smaller subject area than applicable federal standards, making any comparison incongruous.

At the federal level, the Endangered Species Act (ESA) is administered by the United States Fish and Wildlife Service (USFWS). Under the ESA, the USFWS reviews plant and animal populations and population distributions throughout the country (16 U.S.C. § 1531 *et seq.*). The USFWS lists and protects plant and animal species that are native to the United States, whereas the DCNR solely reviews and lists plants for protection that are native to Pennsylvania.

As a result, the USFWS may list native plants that are declining throughout the United States, but flourishing in, or otherwise not found in Pennsylvania. Conversely, plant species that are flourishing throughout the rest of the United States, but have declining populations in Pennsylvania, may be listed for state protection by the DCNR, but remain unlisted by the USFWS.

(12) How does this regulation compare with those of the other states? How will this affect Pennsylvania's ability to compete with other states?

This rulemaking is comparable to native wild plant regulations in surrounding states (such as Maryland, New Jersey, and Ohio), which also classify plants based on rarity.

This rulemaking will not affect Pennsylvania's ability to compete with other states because Pennsylvania's plant classification process is similar to that of other states.

(13) Will the regulation affect any other regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

No, this rulemaking will not affect any other regulations of the DCNR and will not require other departments or state agencies to update or change their regulations.

(14) Describe the communications with and solicitation of input from the public, any advisory council/group, small businesses and groups representing small businesses in the development and drafting of the regulation. List the specific persons and/or groups who were involved. ("Small business" is defined in Section 3 of the Regulatory Review Act, Act 76 of 2012.)

The DCNR sought input on this rulemaking from the following groups:

- The Pennsylvania Biological Survey (PABS)
- Vascular Plant Technical Committee (VPTC)
- Rare Plant Forum (RPF)
- The Pennsylvania Department of Environmental Protection (DEP)
- The Pennsylvania Fish and Boat Commission (PFBC)
- The Pennsylvania Game Commission (PGC)
- The Conservation and Natural Resources Advisory Council (CNRAC)
- The Ecosystem Management Advisory Committee (EMAC)

The Pennsylvania Biological Survey (PABS) was formed in 1979 and is a nonprofit organization whose mission is "to increase the knowledge of and foster the perpetuation of the natural biological diversity of the Commonwealth of Pennsylvania." The VPTC and RPF are sub-groups within PABS.

The Vascular Plant Technical Committee (VPTC) is a steering committee of PABS that focuses specifically on vascular plants. The VPTC votes on recommendations about native wild plant species, then provides recommendations to the DCNR for further consideration. The DCNR discussed this rulemaking with the VPTC in detail in April 2012, November 2012, April 2013, October 2013, April 2014, November 2014, April 2015, November 2015, and April 2016.

The Rare Plant Forum (RPF) is a discussion group within PABS that is open to the public. Many members of the VPTC also attend the RPF, but it is a venue for any citizen in the Commonwealth who has an interest in plants to share information. Members of this group present scientific findings on plant species and population trends which the VPTC then reviews and considers. The DCNR briefed RPF on this rulemaking at RPF meetings in 2012, 2013, 2014, 2015 and 2016.

Pennsylvania Department of Environmental Protection (DEP):

The DCNR met with the DEP to discuss this rulemaking in 2014 and again in 2015. The DCNR presented this rulemaking to the DEP Chapter 102/105 Annual Training Conference on October 29, 2014, and to the DEP's Citizen's Advisory Committee on January 21, 2015

Pennsylvania Fish and Boat Commission (PFBC):

The DCNR discussed the rulemaking with natural diversity biologists at the PFBC to solicit their feedback and comments, in 2014.

Pennsylvania Game Commission (PGC):

The DCNR discussed the rulemaking with natural diversity biologists at the PGC to solicit their feedback and comments, in 2014.

DCNR Advisory Committees:

The DCNR presented this rulemaking to two advisory committees: the Conservation and Natural Resources Advisory Council (CNRAC) and the Ecosystem Management Advisory Committee (EMAC). The Department presented this rulemaking to CNRAC (made up of members appointed by the Governor and legislature) on July 23, 2014 and to EMAC (made up of forestry, biology, industry, and research professionals) on October 8 2014.

(15) Identify the types and number of persons, businesses, small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012) and organizations which will be affected by the regulation. How are they affected?

The Department cannot accurately determine the types and number of persons, businesses, small businesses and organizations that will be affected by this rulemaking; however, any effect this rulemaking may have on those entities will be through their use of the Pennsylvania Natural Diversity Inventory (PNDI).

PNDI is a database that incorporates the DCNR's native wild plant classifications, as well as native rare wildlife classifications from the PGC, the PFBC and the USFWS. The overwhelming majority of PNDI users utilize PNDI to screen their land use projects for impacts to threatened and endangered species as part of the DEP's permit application process (The DEP issues approximately 16,000 environmental permits annually). For example, if a real estate developer wants a DEP permit to conduct a new land use project in the Commonwealth, it must screen the details of its project through PNDI to determine whether its project might impact any threatened or endangered species and what mitigation it needs to do address these potential impacts.

Any potential effects of this rulemaking would be limited to PNDI users who conduct PNDI searches in areas with plants newly classified or declassified by this rulemaking. For example, *Elephantopus Carolinianus* Raeusch, commonly known as "Elephant's Foot," is a plant located in Chester County and currently classified as "Pennsylvania Endangered." This rulemaking proposes to declassify Elephant's Foot and remove it from the DCNR's regulated list of native wild plants. Thus, following this rulemaking, land developers and other PNDI users conducting PNDI searches in Chester County, will no longer have to address impacts to Elephant's Foot, to receive a DEP permit. The opposite is true of *Goodyera tessellata* Lodd, commonly known as "Checkered Rattlesnake-Plantain," which this rulemaking proposes to reclassify from "Tentatively Undetermined," to "Pennsylvania Endangered."

Despite the above examples, there are simply too many variables and considerations involved, for the Department to accurately identify the types and number of persons, businesses, small businesses, and organizations that might be affected by this rulemaking. The Department cannot predict who will run a PNDI search or where an entity might run its PNDI search. Even assuming the Department could make these predictions, it would then have to consider the projects in question.

Projects differ based on a myriad of variables: size, type, specific location of ground impact, presence of classified plants, specific classified plants in question, duration of project, etc. Each of these variables, either individually or in concert with one or more of the other variables, could alter whether a project impacts a particular plant species. For example, an entity may screen a project through PNDI with an area that is larger than the actual area of ground impact. The larger area might impact a plant species classified by this rulemaking, meaning that this rulemaking would affect the project and entity in question; however, the actual area of impact might not affect any classified plant species, meaning that this rulemaking would not affect the project and entity in question; (unless of course the reason that the smaller actual area of ground impact does not affect any classified plant species is because this rulemaking specifically declassified such species in that area, in which case this rulemaking would affect the project and entity in question, by reducing its regulatory burden).

These are the types of speculative considerations that make it impracticable for the Department to accurately determine the types and number of persons, businesses, small businesses and organizations that will be affected by this rulemaking. The Department would like to specifically note, however, that this rulemaking will **declassify more plants than it classifies**.

(16) List the persons, groups or entities, including small businesses that will be required to comply with the regulation. Approximate the number that will be required to comply.

This rulemaking does not require compliance by any group or entity, including small businesses. This rulemaking simply updates Pennsylvania's classified lists of native wild plants, updates the scientific and common names of certain native wild plants and updates the reference source of the nomenclature that the Department uses for native wild plant species taxonomy. As discussed above, some groups or entities may be indirectly affected by this rulemaking to the extent that these groups or entities have to engage PNDI to obtain environmental permits.

(17) Identify the financial, economic and social impact of the regulation on individuals, small businesses, businesses and labor communities and other public and private organizations. Evaluate the benefits expected as a result of the regulation.

Financial/Economic Impact

There will be no financial or economic impact on individuals, small businesses, businesses and labor communities or other public and private organizations as a result of this rulemaking. As stated in the response to question 15, any potential effect of this rulemaking would be limited to PNDI users who are already subject to a financial impact when engaging PNDI to obtain a DEP permit. This rulemaking will not affect that financial impact, nor will it add any additional financial or economic impacts.

Expected Benefits

This rulemaking will make it easier for public and private organizations to care for the environment, by providing a more accurate and current list of the plants in need of the most protection.

Social Impact

This rulemaking will have a positive social impact on public and private organizations that are interested in protecting the Commonwealth's natural resources (e.g. environmental consultants, non-profits, conservation agencies, etc.).

(18) Explain how the benefits of the regulation outweigh any cost and adverse effects.

As stated in the response to question 10 above, this rulemaking benefits state, county and municipal planning officials, conservation groups, organizations concerned with the welfare of the environment, and millions of citizens across the Commonwealth. These groups benefit by having a more accurate representation of the Commonwealth's native wild plant species that need the most protection. Further, because there are no direct costs or adverse effects that will result from this rulemaking, its benefits outweigh any potential costs.

(19) Provide a specific estimate of the costs and/or savings to the regulated community associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

There is no regulated community associated with this rulemaking. This rulemaking regulates the Commonwealth's native wild plants.

(20) Provide a specific estimate of the costs and/or savings to the local governments associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

There are no direct costs or savings to local governments associated with this rulemaking. This rulemaking simply proposes to update the classifications of Pennsylvania's native wild plants; it does not prescribe or prohibit local governments from taking any specific actions. To the extent that local governments are indirectly affected by this rulemaking when screening land use projects through PNDI for the purpose of obtaining a DEP permit, this rulemaking has no direct effect on the costs to local government of going through the process to obtain a DEP permit.

(Please see the response to item (15) for more background on the DEP PNDI permitting process.)

(21) Provide a specific estimate of the costs and/or savings to the state government associated with the implementation of the regulation, including any legal, accounting, or consulting procedures which may be required. Explain how the dollar estimates were derived.

There are no direct costs or savings to state government associated with implementing this rulemaking. The purpose of this rulemaking is to update Pennsylvania's native wild plant classifications. By promulgating this rulemaking, the Department will be implementing it.

(22) For each of the groups and entities identified in items (19)-(21) above, submit a statement of legal, accounting or consulting procedures and additional reporting, recordkeeping or other paperwork, including copies of forms or reports, which will be required for implementation of the regulation and an explanation of measures which have been taken to minimize these requirements.

There will be no additional procedures, forms, or reports required for implementation of this rulemaking.

(22a) Are forms required for implementation of the regulation?

No.

(22b) If forms are required for implementation of the regulation, attach copies of the forms here. If your agency uses electronic forms, provide links to each form or a detailed description of the information required to be reported. Failure to attach forms, provide links, or provide a detailed description of the information to be reported will constitute a faulty delivery of the regulation.

Forms are not required for implementation of this regulation.

(23) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

	Current FY Year	FY +1 Year	FY +2 Year	FY +3 Year	FY +4 Year	FY +5 Year
SAVINGS:	\$	\$	\$	\$	\$	\$
Regulated Community						
Local Government						
State Government						
Total Savings	none	none	none	none	none	none
COSTS:						
Regulated Community						
Local Government						
State Government						
Total Costs	none	none	none	none	none	none
REVENUE LOSSES:						
Regulated Community						
Local Government						

State Government						
Total Revenue Losses	none	none	none	none	none	none

(23a) Provide the past three year expenditure history for programs affected by the regulation.

*There is no designated funding source for the Wild Plant Program; instead several employees in the Department's Bureau of Forestry allocate a portion of their time to working in the program. The Department estimated the portion of time that its employees allocated to the Wild Plant Program, and calculated the commensurate portion of their salaries; these figures are listed in the first row below.

Program	Current FY 2017-2018	FY -1 2016-2017	FY -2 2015-2016	FY -3 2014-2015
Ecological Services Section Wild Plant Program	\$119,000	\$109,000	\$109,000	\$107,000
DCNR Contract cost for Natural Heritage Program Services for Wild Plant Program (data management, collection, environmental review)	\$559,000	\$539,000	\$518,000	\$493,000

(24) For any regulation that may have an adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), provide an economic impact statement that includes the following:

- (a) An identification and estimate of the number of small businesses subject to the regulation.
- (b) The projected reporting, recordkeeping and other administrative costs required for compliance with the proposed regulation, including the type of professional skills necessary for preparation of the report or record.
- (c) A statement of probable effect on impacted small businesses.
- (d) A description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation.

This rulemaking will not have an adverse impact on small businesses. Please also see the response to item (15) above.

(25) List any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, the elderly, small businesses, and farmers.

The DCNR has not identified any affected groups or persons that might have particular needs relevant to this proposed rulemaking.

(26) Include a description of any alternative regulatory provisions which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.

Because of the statutory mandate of the WRCA, no other regulatory alternatives were considered.

(27) In conducting a regulatory flexibility analysis, explain whether regulatory methods were considered that will minimize any adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), including:

- a) The establishment of less stringent compliance or reporting requirements for small businesses;
- b) The establishment of less stringent schedules or deadlines for compliance or reporting requirements for small businesses;
- c) The consolidation or simplification of compliance or reporting requirements for small businesses;
- d) The establishment of performing standards for small businesses to replace design or operational standards required in the regulation; and
- e) The exemption of small businesses from all or any part of the requirements contained in the regulation.

This rulemaking will not have an adverse impact on small businesses. Please also see the response to item (15) above.

28) If data is the basis for this regulation, please provide a description of the data, explain in detail how the data was obtained, and how it meets the acceptability standard for empirical, replicable and testable data that is supported by documentation, statistics, reports, studies or research. Please submit data or supporting materials with the regulatory package. If the material exceeds 50 pages, please provide it in a searchable electronic format or provide a list of citations and internet links that, where possible, can be accessed in a searchable format in lieu of the actual material. If other data was considered but not used, please explain why that data was determined not to be acceptable.

For detailed descriptions of the individual species, limiting factors, and other biological and ecological data used to classify the plants, please see the Department's Species Accounts, which may be found on the DCNR's wild plant program website:

<http://www.dcnr.pa.gov/Conservation/WildPlants/RareThreatenedAndEndangeredPlants/Pages/default.aspx>

The DCNR used the following data to make decisions about plant classifications: numbers of populations known in Pennsylvania, number of individuals within populations, the plant's range, threats such as pests and invasive species and habitat loss, decrease or increase in population numbers, and taxonomic information (note, this list is not exhaustive). Additionally, each year the VPTC makes classification recommendations for native wild plants, based on the research and expertise of the professional botanists that make up the committee.

An important piece of data that the DCNR uses to make classification decisions are referred to as "state ranks." In Pennsylvania, each plant species receives a state rank from the Pennsylvania Natural Heritage Program (PNHP). The PNHP assigns these ranks based on a methodology created by Nature Serve, an international network of natural heritage programs. The purpose of Nature Serve's methodology is to bring consistency to the biodiversity conservation efforts of individuals and organizations throughout the Western Hemisphere. The methodology is used across North, Central and South America. By using this standard tool, the DCNR ensures its evaluation methods are, at a minimum, equivalent to that of other states and countries in the Western Hemisphere and that its classification decisions are based on sound science.

The DCNR has assimilated and reviewed the VPTC's recommendations and other plant location, population and taxonomic data and has classified the native wild plants in this rulemaking, based on the definitions contained in 17 Pa. Code § 45.2.

(29) Include a schedule for review of the regulation including:

- | | |
|---|--|
| A. The date by which the agency must receive public comments: | 30 Days from publication in PA Bulletin. |
| B. The date or dates on which public meetings or hearings will be held: | Summer 2018 |
| C. The expected date of promulgation of the proposed regulation as a final-form regulation: | Summer 2018 |
| D. The expected effective date of the final-form regulation: | Summer 2018 |
| E. The date by which compliance with the final-form regulation will be required: | Summer 2018 |
| F. The date by which required permits, licenses, or other approvals must be obtained: | N/A |

(30) Describe the plan developed for evaluating the continuing effectiveness of the regulations after its implementation.

The DCNR continues to meet with the VPTC bi-annually and maintains relationships with interested groups and botanical experts to stay abreast of new developments and advances regarding plant populations, trends, and taxonomic changes for native plant species across Pennsylvania. The DCNR plans to frequently update its native wild plant classification lists, to ensure and maintain the accuracy of plant classifications. Such updates may be necessary every few years.

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FACE SHEET
FOR FILING DOCUMENTS
WITH THE LEGISLATIVE REFERENCE BUREAU
(Pursuant to Commonwealth Documents Law)

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Copy below is hereby approved as to form and legality. Attorney General

Copy below is hereby certified to be a true and correct copy of a document issued, prescribed or promulgated by:

Copy below is hereby approved as to form and legality. Executive or Independent Agencies.

BY: [Signature]
(DEPUTY ATTORNEY GENERAL)

CONSERVATION & NATURAL RESOURCES

BY: [Signature]

10/16/17
DATE OF APPROVAL

DOCUMENT/FISCAL NOTE NO. 7B-8

DATE OF ADOPTION: 9/18/2017

SEP 18 2017

DATE OF APPROVAL

BY: [Signature]

(Deputy Chief Counsel)
~~(Chief Counsel, Independent Agency)~~
(Strike inapplicable title)

Check if applicable
Copy not approved. Objections attached.

TITLE: Cindy Adams Dunn, Secretary

Check if applicable. No Attorney General approval or objection within 30 days after submission.

PROPOSED RULEMAKING
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

17 PA. CODE, CH. 45
CONSERVATION OF PENNSYLVANIA'S NATIVE WILD PLANTS

PROPOSED RULEMAKING
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES

[17 PA. CODE CH. 45]

Conservation of Pennsylvania Native Wild Plants

[Pa.B.]
[Saturday,]

The Department of Conservation and Natural Resources (“Department” or “DCNR”) proposes to amend Chapter 45 (relating to conservation of Pennsylvania Native Wild Plants).

A. *Effective Date*

This proposed rulemaking will go into effect upon final-form publication in the *Pennsylvania Bulletin*.

B. *Contact Persons*

Primary Contact: Rebecca H. Bowen, Chief, Ecological Services, Bureau of Forestry, Department of Conservation and Natural Resources, P.O. Box 8552, Harrisburg, PA 17105-8552; 717-787-3444; rebbowen@pa.gov.

Secondary Contact: Stephen Ekema-Agbaw, Assistant Counsel, Office of Chief Counsel, Department of Conservation and Natural Resources, P.O. Box 8767, Harrisburg, PA 17105; 717-772-4171; sekema@pa.gov.

C. *Statutory Authority*

The following statutes authorize this rulemaking:

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Section 305(a)(9) of the Conservation and Natural Resources Act (71 P.S. § 1340.305(a)(9)); and
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The WRCA provides “the Department of Environmental Resources shall...conduct investigations on wild plants in order to ascertain information relating to other biological and ecological data to classify plants and to determine management measures necessary for their continued ability to sustain themselves successfully.” (32 P.S. § 5307(a)). “On the basis of such determinations, the Environmental Quality Board shall issue regulations not later than two years from the effective date of this act” (referring to the WRCA). “The Environmental Quality Board may add or delete species as conditions change and may modify regulations to reflect the changing environment.” (32 P.S. § 5307(c))

The CNRA transfers to the DCNR “the powers and duties vested in the [now abolished] Department of Environmental Resources” (the DCNR’s predecessor in interest), by the WRCA (71 P.S. § 1340.305(a)(9)), and

“the powers and duties previously vested the Environmental Quality Board, by sections 7, 8, and 9” of the WRCA (71 P.S. § 1340.313(g)).

D. *Purpose and Background*

Purposes of Rulemaking

This rulemaking proposes to amend 17 Pa. Code Chapter 45 by doing the following: 1) updating the classification lists of native wild plants; 2) updating the scientific and common names of certain native wild plants; and 3) updating the reference source that the DCNR uses for the names of native wild plants.

Regarding updates to the classification lists of native wild plants, this rulemaking proposes to amend the following classification lists: Pennsylvania Extirpated (§ 45.11); Pennsylvania Endangered (§ 45.12); Pennsylvania Threatened (§ 45.13); Pennsylvania Rare (§ 45.14); and Tentatively Undetermined (§ 45.21).

This rulemaking proposes to amend the classification lists in the following ways: 1) adding plants that are currently unclassified, to a classification list; 2) reclassifying plants already on a classification list, to a new classification; and 3) removing plants from the classification lists altogether (declassifying them).

The Process of Classifying Native Wild Plants in Pennsylvania

Native wild plant species are those plant species that existed in Pennsylvania prior to European settlement. There are approximately 2,800 native wild plant species that currently exist or formerly existed in Pennsylvania. The DCNR classifies approximately one-fifth of these species, because they are a conservation concern; the other four-fifths are considered secure and thus not classified.

The DCNR begins the process of classifying native wild plants by collecting and analyzing data on native wild plant species within the Commonwealth. The DCNR uses the following data to make its classification decisions: numbers of populations known in Pennsylvania, number of individuals within populations, the plant's range (amount of ground that it covers), threats such as pests and invasive species and habitat loss, decrease or increase in population numbers, and taxonomic information (note, this list is not exhaustive). The DCNR analyzes this data to determine the population, distribution, habitat needs, limiting factors and other biological and ecological information about each plant species.

An important piece of data that the DCNR uses to make classification decisions are referred to as “state ranks.” In Pennsylvania, each plant species receives a state rank from the Pennsylvania Natural Heritage Program (PNHP). The PNHP assigns these ranks based on a methodology created by Nature Serve, an international network of natural heritage programs. The purpose of Nature Serve's methodology is to bring consistency to the biodiversity conservation efforts of individuals and organizations throughout the Western Hemisphere. This methodology is used across North, Central and South America. By using this standard tool, the DCNR ensures its evaluation methods are, at a minimum, equivalent to that of other states and countries in the Western Hemisphere and that its classification decisions are based on sound science.

Throughout this process the DCNR also receives data, information, and recommendations from the Pennsylvania Biological Survey's Vascular Plant Technical Committee (VPTC). The VPTC is composed of professional botanists working throughout the Commonwealth in academic, consulting, governmental, and conservation organizations. Each year, the VPTC makes classification recommendations for native wild plants, based on the research and expertise of its professional botanists.

The DCNR assimilates and reviews all data and recommendations it collects and receives, and determines the appropriate classifications for each native wild plant species, pursuant to the definitions in 17 Pa Code § 45.2.

Native Wild Plant Classifications

How plants are classified “determine[s] [the] management measures necessary for their continued ability to sustain themselves successfully” (32 P.S. § 5307 (a)). Native wild plant species that are at risk of extinction within the Commonwealth, need greater protection than those less susceptible to such risk. Chapter 45 designates the level of risk facing Pennsylvania’s native wild plant species by classifying them as follows:

Pennsylvania Extirpated (§ 45.11)—A classification of plant species believed to be extinct within the Commonwealth. If a plant species classified as Pennsylvania Extirpated is later found to exist, within the Commonwealth, it will automatically be considered classified as Pennsylvania Endangered.

Pennsylvania Endangered (§ 45.12)—A classification of plant species that are in danger of extinction throughout most or all of their natural range within the Commonwealth, if critical habitat is not maintained or if the species is greatly exploited by man. This classification also includes populations of plant species that have been classified as Pennsylvania Extirpated, but are subsequently found to exist in the Commonwealth.

Pennsylvania Threatened (§ 45.13)—A classification of plant species that may become endangered throughout most or all of their natural range within the Commonwealth, if critical habitat is not maintained to prevent their further decline, or if the species is greatly exploited by man.

Pennsylvania Rare (§ 45.14)—A classification of plant species that are uncommon within the Commonwealth because they have low population numbers, or are only found in restricted geographic areas.

Pennsylvania Vulnerable (§ 45.15)—A classification of plant species that are in danger of population decline within the Commonwealth because of their beauty, economic value, use as a cultivar or other factors which indicate that persons may seek to remove these species from their native habitats.

Special Concern Population (§ 45.20)—A classification of plant species that the Department has determined to be a unique occurrence deserving protection. Among the factors used to classify a plant species as a Special Concern Population are the existence of unusual geographic locations, unisexual populations or extraordinarily diverse plant populations.

Tentatively Undetermined (§ 45.21)—A classification of plant species that are in danger of population decline, but do not meet the criteria for any other classification due to taxonomic uncertainties, limited historical records or insufficient data.

Updating Species Nomenclature

This rulemaking updates the scientific and common names of certain native wild plant species, in order to conform to the Department’s new taxonomic source material.

The nomenclature used to identify species taxonomy in Chapter 45, comes from John T. Kartesz’s 1980 publication, *A Synonymized Checklist of the Vascular Flora of the United States, Canada and Greenland, Volume 2: The Biota of North America*. The DCNR, however, now uses *The Plants of Pennsylvania Second Edition* (2007) by Ann Fowler Rhoads and Timothy A. Block as a reference. The Department made this change

to reflect the most up-to-date information on native wild plants in Pennsylvania thus necessitating an update to the scientific and common names in Chapter 45 to remain consistent with the new source material. Additionally, this rulemaking will correct minor grammatical errors and misspellings of species names.

Pennsylvania Natural Diversity Inventory (PNDI)

The proposed amendments in this rulemaking will be incorporated into the Pennsylvania Natural Diversity Inventory (PNDI).

PNDI is a database that maintains the DCNR's list of native wild plant classifications, as well as native rare wildlife classifications from the Pennsylvania Game Commission (PGC), the Pennsylvania Fish and Boat Commission (PFBC), and the U.S. Fish and Wildlife Service (USFWS). PNDI provides the most current, reliable, and objective scientific information about ecological resources in the Commonwealth and it is used to help inform environmental decisions in the Commonwealth. Most notably, the Department of Environmental Protection (DEP) uses PNDI to inform its environmental permitting decisions.

The overwhelming majority of PNDI users use PNDI as part of the process of obtaining a DEP permit. The DEP requires permit applicants to screen their land use projects through PNDI for potential impacts to threatened or endangered species, in order to receive a DEP permit; threatened and endangered plant species are thereby protected by the DEP's permitting process.

Although this rulemaking will result in updates to the plant data in PNDI, it will not affect the DEP's permitting process. The process of obtaining a DEP permit is beyond the scope of this rulemaking; instead, PNDI's connection to this rulemaking is limited to its use of the plant data that will result from the amendments proposed by this rulemaking. **No person, business, small business, or organization will be required to invest in any additional administrative procedures as a direct result of this rulemaking.**

Finally, because this rulemaking will remove more species from classifications than it adds, there may be fewer classified plant species for prospective DEP permit applicants to account for when applying to obtain a DEP permit. Depending on the project type, location and classified plant species in question, prospective DEP permit applicants may see no change in the amount of mitigation required to address impacts to threatened and endangered species and fulfil permit requirements.

E. Summary of proposed rulemaking

This rulemaking only amends Subchapters A and B of Chapter 45.

Subchapter A. General provisions

There are two updates to Subchapter A: first, from § 45.2. Definitions, this rulemaking removes the term "unlisted," because it is not used in Chapter 45; second, in § 45.3. Classified Plant Taxonomy, this rulemaking changes the taxonomic source material that the Department uses for the nomenclature of native wild plants, from Kartesz J.T. and Rosemarie Kartesz, 1980 *A Synonymized Checklist of the Vascular Flora of the United States, Canada and Greenland, Volume 2: The Biota of North America*, to Rhoads, A.F. and Block, T.A. (2007). *The Plants of Pennsylvania An Illustrated Manual Second Edition*. Philadelphia, Pennsylvania: University of Pennsylvania Press.

Subchapter B. Classified plants

There are a total of 133 substantive changes to Subchapter B (82 name changes and 51 classification changes).

- 9 currently unclassified plant species will be newly classified
- 11 currently classified plant species, will be reclassified
- 31 currently classified plant species will be unclassified
- 82 currently classified plant species will have their names changed

Please note that for the purposes of this rulemaking, a substantive name change is one that changes the meaning of the plant name (see the “Plant Name Change” section of this Preamble below). This rulemaking makes minor grammatical corrections to plant names throughout the Annex (i.e. adding periods, deleting commas, fixing spelling errors), which do not change the meaning of the plant name and are therefore not substantive.

Newly Classified and Reclassified Plant Species

<i>Scientific Name</i>	<i>Common Name</i>	<i>Current</i>	<i>Proposed</i>	<i>Reason for Change</i>	<i>Habitat/Identification Window</i>
<i>Asclepias variegata</i> L.	White Milkweed	TU	PE	population decrease; habitat decline	dry woods; flowers late May - July
<i>Baptisia australis</i> (L.) R.Br.	Blue False Indigo	N	PT	population decrease; unique/rare habitat	river cobble bars and banks; flowers May - June, identifiable most months by leaf and seed pod
<i>Coeloglossum viride</i> (L.) Hartm.	Long-Bracted Green Orchis	TU	PE	population decrease; vulnerable to exploitation	rich woods; flowers May - August
<i>Cypripedium parviflorum</i> Salisb. var. <i>makasin</i> {Source: <i>Flora of North America</i> }	Northern Small Yellow Lady's-Slipper	N	PE	taxon split into distinct subspecies; low numbers; unique/rare habitat; vulnerable to exploitation	moist woods, bogs; flowers April - June
<i>Epilobium strictum</i> Muhl.	Downy Willow-Herb	PE	PR	population increase; habitat decline; unique/rare habitat	wet meadows, marshes, fens, thickets; flowers July - September
<i>Equisetum scirpoides</i> Michx. Source: { <i>Flora of North America</i> }	Dwarf Scouring-Rush	N	PE	recent discovery in PA; low numbers; unique/rare habitat	wet woods and peaty openings; identifiable year-round
<i>Fraxinus profunda</i> (Bush) Bush	Pumpkin Ash	N	PE	low numbers; unique/rare habitat; vulnerable to exotic pest	wet bottomland forest, often in shallow water; identifiable year-round
<i>Goodyera tessellata</i> Lodd.	Checkered Rattlesnake-Plantain	TU	PE	population decrease; habitat decline; vulnerable to exploitation	moist coniferous and deciduous forest; flowers July - early September
<i>Lycopodiella margueritae</i> J.G.Bruce, W.H.Wagner & Beitel	Marguerite's Clubmoss	N	PE	low numbers; global rarity; unique/rare habitat; vulnerable to exploitation	moist sandy wetlands and shores; sporulates August - October
<i>Lysimachia quadriflora</i> Sims	Four-Flowered Loosestrife	TU	PX	population extirpated	wet meadows, fens; flowers July - August
<i>Malaxis bayardii</i> Fernald	Adder's-Mouth	PR	PE	population decrease; global rarity; vulnerable to exploitation	dry open upland forest, shale barrens; flowers July - September
<i>Platanthera aquilonis</i> Sheviak, Lindleyana {Source: <i>Flora of North America</i> }	Northern Green Orchid	N	PE	taxon split into distinct species; low numbers; vulnerable to exploitation	wet meadows, marshes, fens, stream banks, moist deciduous forest slopes; flowers June - August

<i>Platanthera huronensis</i> (Nutt.) Lindl.	Huron Green Orchid	N	PE	taxon split into distinct species; low numbers; vulnerable to exploitation	wet meadows, bogs, woods; flowers June - August
<i>Platanthera peramoena</i> (A.Gray) A.Gray	Purple Fringeless Orchid	TU	PT	low numbers; unique/rare habitat; vulnerable to exploitation	moist meadows, low wet woods, ditches; flowers July - August
<i>Potentilla anserina</i> L.	Silverweed	PT	PR	unique/rare habitat; tolerant of disturbance	moist sandy or gravelly shores or ballast; flowers May - June, identifiable by leaf spring - fall
<i>Ratibida pinnata</i> (Vent.) Barnhart	Gray-Headed Prairie Coneflower	TU	PE	population decrease	dry fields, limestone uplands, open roadsides; flowers June - August
<i>Rubus cuneifolius</i> Pursh	Sand Blackberry	TU	PE	population decrease; habitat decline; unique/rare habitat	sandy dry open thickets and roadsides; flowers May - June, fruits in July, identifiable by leaf spring - fall
<i>Solidago uliginosa</i> Nutt.	Bog Goldenrod	N	PT	population decrease; unique/rare habitat	bogs, swamps, wet meadows, fens; flowers August - October
<i>Vitis rupestris</i> Scheele	Sand Grape	PX	PE	recent rediscovery in PA; low numbers; global rarity; unique/rare habitat	river cobble bars and banks; flowers in May, fruits August - November; identifiable by leaf spring - fall
<i>Zigadenus glaucus</i> (Nutt.) Nutt.	White Camas	N	PE	recent discovery in PA; low numbers; unique/rare habitat	limestone ledges; flowers in August

Key: N: Currently Unclassified; PX: §45.11 Pennsylvania Extirpated; PE: §45.12 Pennsylvania Endangered; PT: §45.13 Pennsylvania Threatened; PR: §45.14 Pennsylvania Rare; PV: §45.15 Pennsylvania Vulnerable; TU: §45.21 Tentatively Undetermined

Classified Plant Species Being Declassified

<i>Scientific Name</i>	<i>Common Name</i>	<i>Current</i>	<i>Proposed</i>	<i>Reason for Change</i>	<i>Habitat/Identification</i>
<i>Alopecurus carolinianus</i> Walt.	Tufted Foxtail	PE	DC	determined to be nonnative to PA; determined to be invasive; high numbers	swamps, ditches, moist meadows; flowers late May - June
<i>Aster firmus</i> Nees	Firm Aster	TU	DC	tolerant of disturbance; high numbers	wet meadows, swamps, fens; flowers August - October
<i>Atriplex littoralis</i> L.	Seaside Orach	PX	DC	recent rediscovery in PA; determined to be nonnative to PA	coastal areas, beaches, salt-treated roadsides; flowers/fruits August - November
<i>Cynanchum laeve</i> (Michx.) Pers.	Smooth Swallow-Wort	PE	DC	population increase; determined to be invasive; tolerant of disturbance	river banks, agricultural fields, roadsides; flowers July - August
<i>Elephantopus carolinianus</i> Raeusch.	Elephant's-Foot	PE	DC	population increase; tolerant of disturbance	open woodlands, woodland borders, serpentine barrens; flowers August - October

<i>Elodea canadensis</i> L. C. Rich.	Broad Waterweed (Male Plants)	TU	DC	high population numbers	shallow water of rivers, creeks, lakes, ponds; flowers late June - early August
<i>Juncus gymnocarpus</i> Coville	Coville's Rush	PR	DC	population increase; tolerant of disturbance	swamps, seeps, springheads; flowers/fruits in summer
<i>Lemna obscura</i> (Austin) Daubs	Little Water Duckweed	PX	DC	determined to be nonnative to PA; tolerant of disturbance	shallow water, often in disturbed areas; identifiable by leaf spring - fall
<i>Lycopodium selago</i> L.	Mountain Clubmoss	PX	DC	misidentified; redetermination	cool boreal cliffs, forests, meadows, shores; sporulates July - September
<i>Myriophyllum heterophyllum</i> (Michx.)	Broad-Leaved Water-Milfoil	PE	DC	recent rediscovery in PA; determined to be nonnative to PA	still water of ponds, lakes; flowers June - July
<i>Nelumbo lutea</i> (Willd.) Pers.	American Lotus	PE	DC	determined to be nonnative to PA; determined to be invasive	ponds and other quiet water; flowers June - September
<i>Panicum bicknellii</i> Nash (Fernald, M. L., Gray's Manual of Botany, 1970, Eighth edition)	Bicknell's Panic-Grass	TU	DC	taxonomic uncertainties	wet or moist sandy woods; flowers May - early July and late summer - early fall
<i>Panicum longiligulatum</i> Nash (Morris Arboretum, 1992, Pennsylvania Flora Database)	Long-Ligule Panic-Grass	TU	DC	taxon lumped with another species	dry woods, slopes, clearings; flowers May - early July and late summer - early fall
<i>Panicum recognitum</i> Fern. (Morris Arboretum, 1992, Pennsylvania Flora Database)	Fernald's Panic-Grass	TU	DC	taxon lumped with another species	moist sandy woods; flowers May - early July and late summer - early fall
<i>Paronychia fastigiata</i> (Raf.) Fern. var. <i>paleacea</i> Fern.	Chaffy Whitlow Wort	TU	DC	taxon lumped with another species	dry, rocky, sandy open woods and edges; flowers July - September
<i>Platanthera hyperborea</i> (L.) Lindl.	Leafy Northern Green Orchid	PE	DC	misidentified; redetermination	wet tundra, stream banks; flowers July - August
<i>Polygonum robustius</i> (Small) Fern.	Robust Smartweed	PT	DC	population increase; disturbance tolerant	swamps, lake shores, streams; flowers July - October
<i>Potamogeton illinoensis</i> Morong	Illinois Pondweed	TU	DC	high numbers; disturbance tolerant	rivers, streams, lakes, ponds; flowers/fruits summer - fall
<i>Prenanthes crepidinea</i> Michx.	Crepis Rattlesnake-Root	PE	DC	population increase	open and forested floodplains, banks; flowers August - November

<i>Pycnanthemum pycnanthemoides</i> (Leavenw.) Fern.	Southern Mountain-Mint	PE	DC	misidentified; redetermination	open habitat; flowers July - September
<i>Solidago purshii</i> Porter	Pursh's Goldenrod	TU	DC	taxon lumped with another species	bogs, swamps, sedge meadows, fens; flowers August - October
<i>Spirodela punctata</i> (Mey.) C. H. Thompson	Eastern Water-Flaxseed	TU	DC	determined to be nonnative to PA	ponds, lakes, swamps, sluggish streams; identifiable by leaf spring - fall
<i>Tradescantia ohiensis</i> Raf.	Ohio Spiderwort	TU	DC	high numbers; disturbance tolerant	alluvial woods, waste ground; flowers May - July
<i>Trautvetteria caroliniensis</i> (Walt.) Vail	Carolina Tassel-Rue	PR	DC	high numbers; disturbance tolerant	wooded seepage slopes, stream banks, bogs; June - July
<i>Utricularia inflata</i> Walt.	Floating Bladderwort	PX	DC	determined to be nonnative to PA; determined to be invasive	lakes, ponds, standing water; flowers May - October
<i>Utricularia minor</i> L.	Lesser Bladderwort	PT	DC	population increase; disturbance tolerant; determined to be invasive	lakes, ponds, swamps, standing water; flowers June - August
<i>Utricularia purpurea</i> Walt.	Purple Bladderwort	PR	DC	population increase; disturbance tolerant	lakes, ponds, standing water; flowers July - early September
<i>Veronica catenata</i> Pennell	Pennell's Speedwell	TU	DC	taxonomic uncertainties	wet fields, ditches, stream edges in shallow water; flowers May - September
<i>Viola nephrophylla</i> Greene	Northern Bog Violet	TU	DC	misidentified; redetermination	bogs, wet meadows, ditches, stream banks; flowers May - July
<i>Viola pedatifida</i> G. Don	Prairie Violet	PE	DC	misidentified; redetermination	open prairies, savannas; flowers April - June
<i>Zannichellia palustris</i> L.	Horned Pondweed	TU	DC	population increase; disturbance tolerant	streams, ponds, lakes, springs, tidal mudflats; flowers May - October

Key: DC: Declassified; N: Currently Unlisted; PX: §45.11 Pennsylvania Extirpated; PE: §45.12 Pennsylvania Endangered; PT: §45.13 Pennsylvania Threatened; PR: §45.14 Pennsylvania Rare; PV: §45.15 Pennsylvania Vulnerable; TU: §45.21 Tentatively Undetermined

Plant Name Changes

Pennsylvania Extirpated – (§ 45.11)

This rulemaking changes the names of sixteen native wild plant species classified as Pennsylvania Extirpated.

<i>Carex aenea</i> Fern.	to	<i>Carex foenea</i> Willd.
<i>Erianthus giganteus</i> (Walt.) Muhl.	to	<i>Saccharum giganteum</i> (Walter) Pers.

<i>Eupatorium album</i> L.	to	<i>Eupatorium album</i> L. var <i>album</i>
<i>Gentianopsis procera</i> (Holm) Ma.	to	<i>Gentianopsis virgata</i> (Raf.) Holub
<i>Helianthus angustifolius</i> L.	to	<i>Helianthus angustifolius</i> L.
<i>Hypericum stans</i> (Michx.) P. Adams & Robson	to	<i>Hypericum crux-andreae</i> (L.) Crantz
<i>Koeleria cristata</i> (L.) Pers.	to	<i>Koeleria macrantha</i> (Ledeb.) Schultes
<i>Lycopodium sabinifolium</i> Willd.	to	<i>Diphasiastrum sabinifolium</i> (Willd.) Holub.
<i>Panicum leibergii</i> (Vasey) Scribn. (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, (Second Edition)	to	<i>Dichantheium leibergii</i> (Vasey) Freckmann
<i>Panicum spretum</i> Schultes (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)	to	<i>Dichantheium spretum</i> (Schult.) Freckmann
<i>Phoradendron serotinum</i> (Raf.) M. C. Johnston	to	<i>Phoradendron leucarpum</i> (Raf.) Reveal & M.C.Johnst.
<i>Sagittaria stagnorum</i> Small	to	<i>Sagittaria filiformis</i> J.G.Sm.
<i>Scirpus heterochaetus</i> Chase	to	<i>Schoenoplectus heterochaetus</i> Chase (Sojak)
<i>Sisyrinchium arenicola</i> E.P.Bickn.	to	<i>Sisyrinchium fuscatum</i> E.P.Bicknell
<i>Sparganium minimum</i> (Hartm.) Fries	to	<i>Sparganium natans</i> L.
<i>Triglochin palustre</i> L.	to	<i>Triglochin palustris</i> L.

Pennsylvania Endangered – (§ 45.12)

This rulemaking changes the names of twenty-nine native wild plant species classified as Pennsylvania Endangered.

<i>Alisma plantago-aquatica</i> L. var. <i>americana</i> Schultes & Schultes	to	<i>Alisma triviale</i> Pursh
<i>Aster borealis</i> (Torr. & Gray) Prov.	to	<i>Symphotrichum boreale</i> (Torr. & Gray) Á.Löve & D.Löve
<i>Aster nemoralis</i> Ait.	to	<i>Oclemena nemoralis</i> (Aiton) E.Greene
<i>Aster solidagineus</i> Michx.	to	<i>Sericocarpus linifolius</i> (L.) Britton, Stearns & Poggenb.
<i>Aster spectabilis</i> Ait.	to	<i>Eurybia spectabilis</i> (Aiton) Nesom
<i>Cerastium arvense</i> (L.) var. <i>villosissimum</i> Pennell	to	<i>Cerastium velutinum</i> Raf. var. <i>villosissimum</i> (Pennell) J.K.Morton
<i>Cymophyllus fraseri</i> (Andr.) Mackenzie	to	<i>Cymophyllus fraserianus</i> (Ker Gawl.) Kartesz & Gandhi
<i>Cypripedium parviflorum</i> Salisb.	to	<i>Cypripedium parviflorum</i> Salisb. var. <i>parviflorum</i> {Source: <i>Flora of North America</i> }
<i>Frasera caroliniensis</i> Walt.	to	<i>Swertia caroliniensis</i> (Walter) Kuntze
<i>Hemicarpha micrantha</i> (Vahl) Britt.	to	<i>Lipocarpha micrantha</i> (Vahl) G.C.Tucker
<i>Lycopodium alopecuroides</i> L.	to	<i>Lycopodiella alopecuroides</i> (L.) Cranfill
<i>Lycopodium porophilum</i> Lloyd & Underwood	to	<i>Huperzia porophila</i> (F.E.Lloyd & Underw.) Holub

<i>Megalodonta beckii</i> (Torr. ex Spreng.) Greene	to	<i>Bidens beckii</i> (Torr. ex Spreng.) Greene
<i>Myriophyllum exalbescens</i> Fern.	to	<i>Myriophyllum sibiricum</i> Komarov
<i>Onosmodium hispidissimum</i> Mackenzie	to	<i>Onosmodium molle</i> Michx. var. <i>hispidissimum</i> (Mack.) Cronquist
<i>Oryzopsis pungens</i> (Torr. ex Spreng.) A. S. Hitchc.	to	<i>Piptatherum pungens</i> (Torr. ex Spreng.) Dorn
<i>Panicum scoparium</i> (Lam.) Gould (Morris Arboretum, 1992, Pennsylvania Flora Database)	to	<i>Dichanthelium scoparium</i> (Lam.) Gould
<i>Panicum xanthophysum</i> (Gray) Freckmann (Morris Arboretum, 1992, Pennsylvania Flora Database)	to	<i>Dichanthelium xanthophysum</i> (A.Gray) Freckmann
<i>Polygonum careyi</i> Olney	to	<i>Persicaria careyi</i> (Olney) Greene
<i>Polygonum setaceum</i> Baldw. ex Ell. var. <i>interjectum</i> Fern.	to	<i>Persicaria setacea</i> (Baldwin) Small
<i>Sagittaria calycina</i> Engelm. var. <i>spongiosa</i> Engelm.	to	<i>Sagittaria calycina</i> Engelm.
<i>Scirpus acutus</i> Muhl. ex Bigelow	to	<i>Schoenoplectus acutus</i> (Muhl. Ex Bigel.) Löve & Löve
<i>Scirpus smithii</i> Gray	to	<i>Schoenoplectus smithii</i> (A.Gray) Sojak
<i>Scirpus torreyi</i> Olney	to	<i>Schoenoplectus torreyi</i> (Olney) Palla
<i>Scleria reticularis</i> Michx.	to	<i>Scleria muhlenbergii</i> Steud.
<i>Senecio antennariifolius</i> Britt.	to	<i>Packera antennariifolia</i> (Britton) W.A.Weber & Á.Löve
<i>Solidago spathula</i> DC. spp. <i>randii</i> var. <i>racemosa</i> (Greene) Gleason	to	<i>Solidago simplex</i> Kunth ssp. <i>randii</i> (Porter) Ringius var. <i>racemosa</i> (Greene) Ringius
<i>Tomanthera auriculata</i> (Michx.) Raf.	to	<i>Agalinis auriculata</i> (Michx.) S.F.Blake

Pennsylvania Threatened – (§ 45.13)

This rulemaking changes the names of nine native wild plant species classified as Pennsylvania Threatened.

<i>Aster depauperatus</i> (Porter) Fern.	to	<i>Symphyotrichum depauperatum</i> (Fernald) Nesom
<i>Aster novi-belgii</i> L.	to	<i>Symphyotrichum novi-belgii</i> (L.) Nesom var. <i>novi-belgii</i>
<i>Cimicifuga americana</i> Michx.	to	<i>Actaea podocarpa</i> DC
<i>Euthamia tenuifolia</i> (Pursh) Greene	to	<i>Euthamia caroliniana</i> (L.) Greene ex Porter & Britton
<i>Juncus alpinus</i> Vill.	to	<i>Juncus alpinoarticulatus</i> Chaix in Vill. ssp. <i>nodulosus</i> (Wahlenb.) Hamet-Ahti.
<i>Juncus balticus</i> Willd.	to	<i>Juncus arcticus</i> Willd. var. <i>littoralis</i> (Engelm.) Boivin.
<i>Lycopodium appressum</i> (Chapman) Lloyd & Underwood	to	<i>Lycopodiella appressa</i> (Chapm.) Cranfill
<i>Spiraea betulifolia</i> Pallas ssp. <i>corymbosa</i> (Raf.) Taylor & MacBryde	to	<i>Spiraea betulifolia</i> Pallas var. <i>corymbosa</i> (Raf.) Maxim.

<i>Talinum teretifolium</i> Pursh	to	<i>Phemeranthus teretifolius</i> (Pursh) Raf.
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Pennsylvania Rare – (§ 45.14)

This rulemaking changes the names of four native wild plant species classified as Pennsylvania Rare.

<i>Panicum commonsianum</i> Ashe var. <i>euchlamydeum</i> (Skinners) Pohl (Morris Arboretum, 1992, Pennsylvania Flora Database)	to	<i>Dichantheium commonsianum</i> (Ashe) Freckmann var. <i>euchlamydeum</i> (Skinners) Pohl
<i>Prunus pumila</i> L.	to	<i>Prunus pumila</i> L. var. <i>pumila</i>
<i>Scirpus fluviatilis</i> (Torr.) Gray	to	<i>Schoenoplectus fluviatilis</i> (Torr.) Strong
<i>Senecio anonymus</i> Wood	to	<i>Packera anonyma</i> (A.W.Wood) W.A.Weber & Á.Löve

Pennsylvania Vulnerable – (§ 45.15)

This rulemaking changes the name of one native wild plant species classified as Pennsylvania Vulnerable.

<i>Cypripedium pubescens</i> Willd.	to	<i>Cypripedium parviflorum</i> Salisb. var. <i>pubescens</i> (Willd.) Correll
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Tentatively Undetermined – (§ 45.21)

This rulemaking changes the name of twenty-one native wild plant species classified as tentatively undetermined.

<i>Aristida curtissii</i> (Gray) Nash	to	<i>Aristida dichotoma</i> Michx. var. <i>curtissii</i> A.Gray
<i>Aster dumosus</i> L.	to	<i>Symphyotrichum dumosum</i> (L.) Nesom
<i>Aster ericoides</i> L.	to	<i>Symphyotrichum ericoides</i> (L.) Nesom
<i>Cassia marilandica</i> L.	to	<i>Senna marilandica</i> (L.) Link
<i>Hedyotis purpurea</i> (L.) Torr. & Gray	to	<i>Houstonia purpurea</i> L. var. <i>purpurea</i>
<i>Liatris scariosa</i> (L.) Willd. var. <i>nieuwlandii</i> Lunell <i>Liatris scariosa</i> (L.) Willd. var. <i>novae-angliae</i> Lunell	combined	<i>Liatris scariosa</i> (L.) Willd.
<i>Malaxis brachypoda</i> (Gray) Fern.	to	<i>Malaxis monophyllos</i> (L.) Swartz var. <i>brachypoda</i> (A.Gray) F.Morris & E.A. Eames
<i>Nuphar lutea</i> (L.) Sibthorp & Sm. ssp. <i>pumilum</i> (Timm) E.O. Beal	to	<i>Nuphar microphylla</i> (Pers.) Fernald
<i>Panicum annulum</i> Ashe (Morris Arboretum, 1992, Pennsylvania Flora Database)	to	<i>Dichantheium annulum</i> (Ashe) LeBlond
<i>Panicum boreale</i> Nash (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)	to	<i>Dichantheium boreale</i> (Nash) Freckmann

<i>Panicum commonsianum</i> Ashe var. <i>commonsianum</i> (Morris Arboretum, 1992, Pennsylvania Flora Database)	to	<i>Dichanthelium commonsianum</i> (Ashe) Freckmann
<i>Panicum lucidum</i> Ashe (Fernald, M. L., Gray's Manual of Botany, 1970, Eighth edition)	to	<i>Dichanthelium lucidum</i> (Ashe) LeBlond
<i>Panicum villosissimum</i> Nash (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)	to	<i>Dichanthelium villosissimum</i> (Nash) Freckmann
<i>Panicum yadkinense</i> Ashe (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)	to	<i>Dichanthelium yadkinense</i> (Ashe) Mohlenbr.
<i>Potamogeton filiformis</i> Pers.	to	<i>Potamogeton filiformis</i> Pers. var. <i>borealis</i> (Raf.) St. John
<i>Pycnanthemum pilosum</i> Nutt.	to	<i>Pycnanthemum verticillatum</i> (Michx.) Pers. var. <i>pilosum</i> (Nutt.) Cooperr.
<i>Ranunculus trichophyllus</i> Chaix (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)	to	<i>Ranunculus aquatilis</i> L. var. <i>diffusus</i> With.
<i>Rhynchospora globularis</i> (Chapman) Small	to	<i>Rhynchospora recognita</i> (Gale) Kral
<i>Senecio plattensis</i> Nutt.	to	<i>Packera plattensis</i> (Nutt.) W.A. Weber & Á.Löve
<i>Uvularia puberula</i> Michx.	to	<i>Uvularia pudica</i> Michx.

F. Benefits, Costs and Compliance

Benefits

This rulemaking will benefit state, county and municipal conservation planning officials, conservation groups, and other organizations concerned with the welfare of the environment, because it more accurately represents the plants in Pennsylvania in need of the most protection. Additionally, this rulemaking benefits the citizens of Pennsylvania by protecting the Commonwealth's natural resources, which is a constitutional right. (Pa.Const. Art. I § 27).

Keeping up-to-date classifications of native wild plants, ensures that the DCNR and other public and private conservation organizations are targeting the appropriate species in their conservation efforts. This will help maintain the biodiversity of the Commonwealth's ecological systems.

Compliance Costs

This rulemaking does not prescribe anything for a group or entity to comply with; instead this rulemaking updates Pennsylvania's classified lists of native wild plants, updates the scientific and common names of certain

native wild plant species and updates the reference source of the nomenclature that the Department uses for native wild plant species taxonomy. There are thus no compliance costs associated with this rulemaking.

Paperwork Requirements

There will be no increase in the amount of required paperwork associated with this rulemaking.

G. Sunset Review

The regulations will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfill the goals for which they were intended.

H. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on 11/6/11 the Department submitted a copy of this rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the Senate and House Environmental Resources and Energy Committees. A copy of this material is available to the public upon request. Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations, or objections to the rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections must specify the regulatory review criteria which have not been met. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the rulemaking, by the Department, the General Assembly and the Governor of comments, recommendations or objections raised.

I. Public Comments

Paper comments.

Interested persons are invited to submit comments regarding the rulemaking to Rebecca H. Bowen, Ecological Services Section, Bureau of Forestry, DCNR, P. O. Box 8552, Harrisburg, PA 17105-8552 (hand delivery, express mail or first class mail: Rachel Carson State Office Building, 6th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, must be received by the Department thirty days from the date that this rulemaking is published in the *Pennsylvania Bulletin*.

Electronic comments.

Comments may also be submitted to the Department via email at RA-Ch45WildPlants@pa.gov and must also be received by the Department thirty days from the date that this rulemaking is published in the *Pennsylvania Bulletin*. Fill in the subject line as follows: "Chapter 45 proposed rulemaking." A return name and U.S. Postal Service mailing address must be included in each transmission.

CINDY ADAMS DUNN,
Secretary

Fiscal Note:

Annex A

TITLE 17. CONSERVATION AND NATURAL RESOURCES

**PART I. DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES**

Subpart D. RESOURCE CONSERVATION

**Chapter 45. CONSERVATION OF PENNSYLVANIA
NATIVE WILD PLANTS**

Subchapter A. GENERAL PROVISIONS

* * *

§ 45.2. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

* * *

[*Unlisted*—Plant species which are native to this Commonwealth, presently capable of sustaining their populations successfully, not in need of protection currently and currently not included in classifications under this chapter.]

* * *

§ 45.3. Classified plant taxonomy.

Nomenclature used to identify species taxonomy contained within Subchapter B is according to [Kartesz, J. T. and Rosemarie Kartesz, 1980 *A Synonymized Checklist of the Flora of the U. S., Canada, and Greenland*] Rhoads, A.F. and Block, T.A. (2007). *The Plants of Pennsylvania An Illustrated Manual Second Edition*. Philadelphia, Pennsylvania: University of Pennsylvania Press., unless a different taxonomic source is indicated immediately following the scientific name.

Subchapter B. CLASSIFIED PLANTS

Sec.

§ 45.11. Pennsylvania Extirpated.

Plant species classified as Pennsylvania Extirpated are as follows:

Scientific Name:

[*Aeschynomene virginica* (L.) BSP.] *Aeschynomene virginica*
(L.) Britton, Stearns & Poggenb.
Agalinis decemloba (Greene) Pennell

[*Agrostis altissima* (Walt.) Tuckerman] *Agrostis altissima*
(Walter) Tuck.

Arctostaphylos uva-ursi (L.) Spreng.

Asclepias rubra L.

[*Astragalus neglectus* (Torr. & Gray) Sheldon] *Astragalus*
neglectus (Torr. & A.Gray) Sheldon

[*Atriplex littoralis* L.]

Berberis canadensis P. Mill.

Buchnera americana L.

Carex adusta Boott

[*Carex aenea* Fern.]

Carex alopecoidea Tuckerman

Carex backii Boott

[*Carex barrattii* Schwein & Torr.] *Carex barrattii* Schwein. &
Torr.

[*Carex chordorrhiza* Ehrh. ex L.f.] *Carex chordorrhiza* L.f.

Carex foenea Willd.

Carex hyalinolepis Steud.

Carex nigra (L.) Reichard

Carex sartwellii Dewey

[*Chamaecyparis thyoides* (L.) BSP.] *Chamaecyparis thyoides*
(L.) Britton, Stearns & Poggenb.

Commelina erecta L.

Commelina virginica L.

Coreopsis rosea Nutt.

[*Crassula aquatica* (L.) Schoenl.] *Crassula aquatica* (L.)
Schönland

Crotonopsis elliptica Willd.

[*Cynoglossum boreale* Fern.] *Cynoglossum boreale* Fernald

Cyperus polystachyos Rottb.

Common Name:

Sensitive Joint-Vetch

[Blue-Ridge False-Foxglove] Blue Ridge
False Foxglove

Tall Bentgrass

Bearberry Manzanita

Red Milkweed

Cooper's Milk-Vetch

[Seaside Orach]

American Barberry

[Blue Hearts] Bluehearts

Crowded Sedge

[Fernald's Hay Sedge]

Foxtail Sedge

Rocky Mountain Sedge

Barratt's Sedge

Creeping Sedge

Fernald's Hay Sedge

[Shore-Line Sedge] Shoreline Sedge

Black Sedge

Sartwell's Sedge

[Atlantic White Cedar] Atlantic White-
Cedar

[Slender Day-Flower] Slender Dayflower

[Virginia Day-Flower] Virginia

Dayflower

Pink Tickseed

[Water Pigmy-Weed] Water-Pigmyweed

Elliptical Rushfoil

Northern Hound's Tongue

Many-Spiked Flatsedge

Cypripedium candidum Muhl. ex Willd.
 [*Desmodium sessilifolium* (Torr.) Torr. & Gray] *Desmodium sessilifolium* (Torr.) Torr. and A.Gray
Dichantheium leibergii (Vasey) Freckmann
Dichantheium spretum (Schult.) Freckmann
Diphasiastrum sabinifolium (Willd.) Holub.
Distichlis spicata (L.) Greene
 [*Draba reptans* (Lam.) Fern.] *Draba reptans* (Lam.) Fernald
 [*Echinacea laevigata* (C. L. Boynt. & Beadle) Blake]
Echinacea laevigata (C. L. Boynton & Beadle) S.F.Blake
Elatine americana (Pursh) Arn.

Eleocharis tricostata Torr.
 [*Eleocharis tuberculosa* (Michx.) Roemer & Schultes]
Eleocharis tuberculosa (Michx.) Roem. & Schult.
 [*Elodea schweinitzii* (Planch.) Caspary] *Elodea schweinitzii* (Planch) Casp.
 [*Erianthus giganteus* (Walt.) Muhl.]
Eriocaulon decangulare L.

 [*Eriocaulon parkeri* B. L. Robins.] *Eriocaulon parkeri* B.L.Rob.
Eryngium aquaticum L.
 [*Eupatorium album* L.] *Eupatorium album* L. var *album*
 [*Eupatorium leucolepis* (DC.) Torr & Gray] *Eupatorium leucolepis* (DC) Torr. & A.Gray
Euphorbia obtusata Pursh
Fimbristylis puberula (Michx.) Vahl
 [*Galactia regularis* (L.) BSP.] *Galactia regularis* (L.) Britton, Stearns & Poggenb
 [*Galactia volubilis* (L.) Britt.] *Galactia volubilis* (L.) Britton
 [*Gentiana catesbaei* Walt.] *Gentiana catesbaei* Walter
 [*Gentianopsis procera* (Holm) Ma.] *Gentianopsis virgata* (Raf.) Holub
 [*Helianthus angustifolius* L.] *Helianthus angustifolius* L.
 [*Hordeum pusillum* Nutt.] *Hordeum pusillum* Nutt. Á.Löve
 [*Hottonia inflata* Ell.] *Hottonia inflata* Elliott
Hydrocotyle umbellata L.
 [*Hypericum adpressum* Bart.] *Hypericum adpressum* Raf. ex Barton
Hypericum crux-andreae (L.) Crantz
 [*Hypericum denticuiatum* Walt.] *Hypericum denticulatum* Walter
 [*Hypericum gymnanthum* Engelm. & Gray] *Hypericum gymnanthum* Engelm. & A.Gray
 [*Hypericum stans* (Michx.) P. Adams & Robson]
 [*Ilex glabra* (L.) Gray] *Ilex glabra* (L.) A.Gray

Small White Lady's-Slipper
 Sessile-Leaved Tick Trefoil

Leiberg's Panic Grass
Eaton's Witchgrass
Fir Clubmoss
 Sea-Shore Salt-Grass
 Carolina Whitlow-Grass
 [Smooth Coneflower] Smooth Purple Coneflower
 [Long-Stemmed Water-Wort] Long-Stem Waterwort
 Three-Ribbed Spike-Rush
 Long-Tuberclcd Spike-Rush

 Schweinitz's Waterweed

 [Sugar Cane Plumegrass]
 [Ten-Angled Pipewort] Ten-Angle Pipewort
 Parker's Pipewort

 Marsh Eryngo
 White Thoroughwort
 White-Bracted Thoroughwort

 Blunt-Leaved Spurge
 Hairy Fimbry
 Eastern Milk-Pea

 [Downey Milk-Pea] Downy Milk-Pea
 Elliott's Gentian
 [Lesser Fringed-Gentian] Narrow-Leaved Fringed Gentian
 Swamp Sunflower
 [Little Barley] Little-Barley
 American Featherfoil
 Many-Flowered Pennywort
 Creeping St. John's-Wort

St. Peter's-Wort
 Coppery St. John's-Wort

 Clasping-Leaved St. John's-Wort

 [St. Peter's-Wort]
 [Ink-Berry] Inkberry

<i>Itea virginica</i> L.	[Virginia Willow] <u>Virginia-Willow</u>
[<i>Juncus greenei</i> Oakes & Tuckerman] <u>Juncus greenei Oakes & Tuck.</u>	Greene's Rush
[<i>Koeleria cristata</i> (L.) Pers.] <u>Koeleria macrantha (Ledeb.) Schultes</u>	Junegrass
[<i>Leiophyllum buxifolium</i> (Berg.) Ell.] <u>Leiophyllum buxifolium (Berg.) Elliott</u>	Sand-Myrtle
[<i>Lemna obscura</i> (Austin) Daubs]	[Little Water Duckweed]
<i>Lespedeza stuevei</i> Nutt.	[Tall Bush Clover] <u>Tall Bush-Clover</u>
<i>Limosella australis</i> R.Br.	Awl-Shaped Mudwort
[<i>Lobelia nuttallii</i> Roemer & Schultes] <u>Lobelia nuttallii Roem. & Schult.</u>	Nuttall's Lobelia
[<i>Ludwigia sphaerocarpa</i> Ell.] <u>Ludwigia sphaerocarpa Elliott</u>	Spherical-Fruited Seedbox
[<i>Lycopodium sabinifolium</i> Willd.]	[Fir Clubmoss]
[<i>Lycopodium selago</i> L.]	[Mountain Clubmoss]
<u>Lysimachia quadriflora Sims</u>	<u>Four-Flowered Loosestrife</u>
<i>Matelea carolinensis</i> (Jacq.) Woods.	Carolina Milkvine
<i>Micranthemum micranthemoides</i> (Nutt.) Wettst.	Nuttall's Mud-Flower
<i>Muhlenbergia capillaris</i> (Lam.) Trin.	Short Muhly
<i>Myrica heterophylla</i> Raf.	Evergreen Bayberry
[<i>Onosmodium virginianum</i> (L.) A. DC.] <u>Onosmodium virginianum (L.) A.DC.</u>	[Virginia False-Gromwell] <u>Virginia False Gromwell</u>
[<i>Ophioglossum vulgatum</i> L. var. <i>pycnostichum</i> Fern.]	Adders Tongue
<u>Ophioglossum vulgatum L. var. pycnostichum Fernald</u>	
[<i>Panicum leibergii</i> (Vasey) Scribn. (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, (Second Edition))]	[Leiberg's Panic-grass]
[<i>Panicum spretum</i> Schultes (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)]	[Spurred Panic-Grass]
[<i>Phoradendron serotinum</i> (Raf.) M. C. Johnston]	Christmas Mistletoe
<u>Phoradendron leucarpum (Raf.) Reveal & M.C.Johnst.</u>	
<i>Phyllanthus caroliniensis</i> Walt.	Carolina Leaf-Flower
<i>Platanthera cristata</i> (Michx.) Lindl.	Crested Yellow Orchid
<i>Platanthera leucophaea</i> (Nutt.) Lindl.	Prairie White-Fringed Orchid
<i>Polygala lutea</i> L.	Yellow Milkwort
<i>Populus heterophylla</i> L.	Swamp Cottonwood
<i>Potamogeton alpinus</i> Balbis	Northern Pondweed
<i>Potamogeton praelongus</i> Wulfen	[White-Stemmed Pondweed] <u>White-Stem Pondweed</u>
<i>Prenanthes racemosa</i> Michx.	Glaucous Rattlesnake-Root
<i>Proserpinaca pectinata</i> Lam.	Comb-Leaved Mermaid-Weed
<i>Ranunculus hederaceus</i> L.	Long-Stalked Crowfoot
<i>Rhododendron calendulaceum</i> (Michx.) Torr.	Flame Azalea
[<i>Rhynchospora fusca</i> (L.) Ait.f.] <u>Rhynchospora fusca (L.) Aiton f.</u>	[Brown Beaked-Rush] <u>Brown Beak-Rush</u>

[*Rhynchospora gracilentata* Gray] *Rhynchospora gracilentata*

A.Gray

[*Ruellia caroliniensis* (Gmel.) Steud.] *Ruellia caroliniensis*

(Walter ex J.F.Gmel.) Steud.

Sabatia campanulata (L.) Torr.

Sabatia stellaris Pursh

Saccharum giganteum (Walter) Pers.

[*Sagittaria stagnorum* Small] *Sagittaria filiformis* J.G.Sm.

[*Scirpus heterochaetus* Chase] *Schoenoplectus heterochaetus*

Chase (Sojak)

Scutellaria serrata Andr.

[*Sisyrinchium arenicola* E.P.Bickn.] *Sisyrinchium fuscatum*

E.P.Bicknell

[*Smilax pseudo-china* L.] *Smilax pseudochina* L.

[*Sparganium minimum* (Hartm.) Fries] *Sparganium natans* L.

[*Spiraea virginiana* Britt.] *Spiraea virginiana* Britton

Spiranthes magnicamporum Sheviak

Trifolium reflexum L.

[*Triglochin palustre* L.] *Triglochin palustris* L.

Utricularia fibrosa Walt.

[*Utricularia inflata* Walt.]

[*Utricularia resupinata* B. D. Greene] *Utricularia resupinata*

B.D.Greene ex Bigelow

[*Vitis rupestris* Scheele]

[Beaked-Rush] **Beak-Rush**

Carolina Petunia

[Slender Marsh Pink] **Slender Marsh-Pink**

Sea Pink

Sugarcane-Plumegrass

Water Arrow-Head

[Slender Bullrush] **Slender Bulrush**

Showy Skullcap

Sand Blue-Eyed Grass

Long-Stalked Greenbrier

Small Bur-Reed

Virginia Spiraea

Ladies'-Tresses

Buffalo Clover

Marsh Arrowgrass

Fibrous Bladderwort

[Floating Bladderwort]

Northeastern Bladderwort

[Sand Grape]

§ 45.12. Pennsylvania Endangered.

Plant species classified as Pennsylvania Endangered are as follows:

Scientific Name:

[*Aconitum reclinatum* Gray] *Aconitum reclinatum* A.Gray

Acorus americanus (Raf.) Raf.

Agalinis auriculata (Michx.) S.F.Blake

[*Agalinis paupercula* (Gray) Britt.] *Agalinis paupercula*

(A.Gray) Britton

[*Alisma plantago-aquatica* L. var. *americana* Schultes &

Schultes] *Alisma triviale* Pursh

[*Alnus viridis* (Chaix) DC.] *Alnus viridis* (Vill.) DC

[*Alopecurus carolinianus* Walt.]

[*Amelanchier bartramiana* (Tausch) M. Roemer]

Amelanchier bartramiana (Tausch) M.Roem.

Ammania coccinea Rottb.

[*Anemone cylindrica* Gray] *Anemone cylindrica* A.Gray

Common Name:

White Monkshood

Sweet Flag

Eared False Foxglove

[Small-Flowered False-Foxglove]

Small-Flowered False Foxglove

Broad-Leaved Water-Plaintain

Mountain Alder

[Tufted Foxtail]

Oblong-Fruited Serviceberry

Scarlet Ammannia

[Long-Fruited Anemone] **Long-Headed**

Anemone

Arabis missouriensis Greene
Arethusa bulbosa L.
 [Arnica acaulis (Walt.) BSP.] Arnica acaulis (Walter)
Britton, Stearns & Poggenb.
 [Artemisia campestris L. ssp. caudata (Michx.) Hall &
 Clements] Artemisia campestris L. ssp. caudata (Michx.)
Hall & Clements.
Asclepias variegata L.
Asplenium resiliens Kunze
 [Aster borealis (Torr. & Gray) Prov.]
 [Aster nemoralis Ait.]
 [Aster solidagineus Michx.]
 [Aster spectabilis Ait.]
Bidens beckii (Torr. ex Spreng.) Greene
 [Boltonia asteroides (L.) L'Her.] Boltonia asteroides (L.)
L'Her.
Cardamine pratensis L. var. *palustris* Wimm. & Grab.
 (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants
 of Northeastern United States and Adjacent Canada, 1991,
 Second Edition)
Carex atherodes Spreng.
Carex aurea Nutt.
Carex bebbii (Bailey) Fern.
 [Carex bicknellii Britt.] Carex bicknellii Britton
 [Carex bullata Schkuhr] Carex bullata Willd.
Carex careyana Dewey
Carex collinsii Nutt.
 [Carex crinita Lam. var. brevicrinis Fern. (Gleason, H. A. and
 A. Cronquist, Manual of Vascular Plants of Northeastern
 United States and Adjacent Canada, 1991, Second Edition)]
Carex crinita Lam. var. brevicrinis Fernald
Carex eburnea Boott
Carex formosa Dewey
 [Carex garberi Fern.] Carex garberi Fernald
Carex geyeri Boott
Carex gravida Bailey
 [Carex mitchelliana M. A. Curtis] Carex mitchelliana M.A.
Curtis
Carex pauciflora Lightf.
Carex polymorpha Muhl.
Carex pseudocyperus L.
Carex retrorsa Schwein.
Carex typhina Michx.
Carex viridula Michx.
 [Cerastium arvense (L.) var. villosissimum Pennell]

[Missouri Rock-Cress] Missouri
Rockcress
 [Swamp-Pink] Dragon's-Mouth

Leopard's-Bane

Beach Wormwood
White Milkweed
 Black-Stemmed Spleenwort
 [Rush Aster]
 [Bog-Aster]
 [Narrow-Leaved White-Topped Aster]
 [Low Showy Aster]
Beck's Water-Marigold

Aster-Like Boltonia

Cuckooflower
 Awned Sedge
 Golden-Fruited Sedge
 Bebb's Sedge
 Bicknell's Sedge
 Bull Sedge
 Carey's Sedge
 Collin's Sedge

[Short Hair Sedge] Short-Hair Sedge
 Ebony Sedge
 Handsome Sedge
 Elk Sedge
 Geyer's Sedge
 Heavy Sedge
 Mitchell's Sedge
 Few-Flowered Sedge
 Variable Sedge
 Cyperus-Like Sedge
 Backward Sedge
 Cat-Tail Sedge
 Green Sedge
 [Mouse-Ear Chickweed]

Cerastium velutinum Raf. var. *villossissimum* (Pennell)

J.K.Morton

[*Chasmanthium laxum* (L.) Yates] *Chasmanthium laxum*
(L.) H.O.Yates

[*Chenopodium foggii* H. A. Wahl] *Chenopodium foggii*
Wahl

Chrysogonum virginianum L.

Cirsium horridulum Michx.

Cladium mariscoides (Muhl.) Torr.

Clematis viorna L.

Clethra acuminata Michx.

Clitoria mariana L.

Coeloglossum viride (L.) Hartm.

[*Conioselinum chinense* (L.) BSP.] *Conioselinum chinense*
(L.) Britton, Stearns & Poggenb.

[*Cryptogramma stelleri* (Gmel) Prantl] *Cryptogramma*
stelleri (Gmel.) Prantl

[*Cymophyllus fraseri* (Andr.) Mackenzie] *Cymophyllus*
fraserianus (Ker Gawl.) Kartesz & Gandhi

[*Cynanchum laeve* (Michx.) Pers.]

Cyperus acuminatus Torr. & Hook.

Cyperus diandrus Torr.

Cyperus houghtonii Torr.

[*Cyperus refractus* Engelm. ex Steud.] *Cyperus refractus*
Engelm.

Cyperus retrorsus Chapman

Cypripedium parviflorum Salisb. var. *makasin* {Source:
Flora of North America}

[*Cypripedium parviflorum* Salisb.] *Cypripedium parviflorum*
Salisb. var. *parviflorum* {Source: *Flora of North America*}

[*Delphinium exaltatum* Ait.] *Delphinium exaltatum* Aiton

Desmodium humifusum (Muhl.) Beck

[*Diarrhena obovata* (Gleason) Bradenburg (Morris
Arboretum, 1992 Pennsylvania Flora Database)] *Diarrhena*
obovata (Gleason) Bradenburg

[*Dicentra eximia* (Ker-Gwal.) Torr.] *Dicentra eximia* (Ker
Gwal.) Torr.

Dichanthelium scoparium (Lam.) Gould

Dichanthelium xanthophysum (A.Gray) Freckmann

Dodecatheon meadia L.

Dryopteris campyloptera (Kunze) Clarkson

[*Echinochloa walteri* (Pursh) Heller] *Echinochloa walteri*
(Pursh) A.Heller

[*Eleocharis caribaea* (Rottb.) Blake] *Eleocharis caribaea*
(Rottb.) S.F.Blake

Octoraro Creek Chickweed

[Slender Sea-Oats] Slender Wild-Oats

Fogg's Goosefoot

Green-and-Gold

Horrible Thistle

[Twig Rush] Twig-Rush

[Vase-Vine Leather-Flower] Leather-
Flower

[Mountain Pepper-Bush] Mountain
Pepperbush

[Butterfly-Pea] Butterfly Pea

Long-Bracted Green Orchis

Hemlock-Parsley

[Slender Rock-Brake] Slender
Rockbrake

Fraser's Sedge

[Smooth Swallow-Wort]

Short-Pointed Flatsedge

[Umbrella Flatsedge] Umbrella Sedge

Houghton's Flatsedge

Reflexed Flatsedge

Retorse Flatsedge

Northern Small Yellow Lady's-Slipper

[Small Yellow Lady's-Slipper]

Southern Small Yellow Lady's-Slipper

Tall Larkspur

Trailing Tick-Trefoil

[American Beakgrain] Obovate
beakgrain

[Wild Bleeding-Hearts] Wild Bleeding-
Heart

Velvety Panic Grass

Slender Panic Grass

[Common Shooting-Star] Shooting-Star

Mountain Wood Fern

Walter's Barnyard-Grass

Capitate Spike-Rush

[*Eleocharis compressa* Sullivant (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)]

Eleocharis compressa Sull.

Eleocharis elliptica Kunth

[*Eleocharis obtusa* (Willd.) Schultes var. *peasei* Svenson (Fernald, M. L., Gray's Manual of Botany, 1970, Eighth edition)] **Eleocharis obtusa (Willd.) Schult. var. peasei**

Svenson

[*Eleocharis parvula* (Roemer & Schultes) Link ex Buff. & Fingerh.] **Eleocharis parvula (Roem. & Schult.) Link ex Buffon & Fingerh.**

[*Eleocharis pauciflora* (Lightf.) Link var. *fernaldii* Svens. (Fernald, M. L., Gray's Manual of Botany, 1970, Eighth edition)] **Eleocharis pauciflora (Lightf.) Link var. fernaldii**

Svenson

[*Eleocharis quadrangulata* (Michx.) Roemer & Schultes]

Eleocharis quadrangulata (Michx.) Roem. & Schult.

[*Eleocharis rostellata* Torr.] **Eleocharis rostellata (Torr.) Torr.**

[*Eleocharis tenuis* (Willd.) Schultes var. *verrucosa* (Svenson) Svenson (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)] **Eleocharis tenuis (Willd.)**

Schult. var. verrucosa (Svenson) Svenson

[*Elephantopus carolinianus* Raeusch.]

[*Epilobium strictum* Muhl.]

Equisetum scirpoides Michx. {Source: Flora of North America}

[*Equisetum variegatum* Schleich. ex Weber & C. Mohr]

Equisetum variegatum Schleich.

[*Eriophorum gracile* W.D.J. Koch] **Eriophorum gracile Koch ex Roth**

Eriophorum tenellum Nutt.

Euphorbia ipecacuanhae L.

[*Euphorbia purpurea* (Raf.) Fern.] **Euphorbia purpurea (Raf.) Fernald**

Eurybia spectabilis (Aiton) Nesom

Festuca paradoxa Desv.

[*Frasera caroliniensis* Walt.]

Fraxinus profunda (Bush) Bush

[*Galium labradoricum* (Wieg.) Wieg.] **Galium labradoricum Wiegand**

[*Gaylussacia dumosa* (Andr.) Torr. & Gray] **Gaylussacia dumosa (Andr.) Torr. & A.Gray**

[*Geranium bicknellii* Britt.] **Geranium bicknellii Britton**

Flat-Stemmed Spike-Rush

Slender Spike-Rush

Wright's Spike-Rush

[Little-Spike Spike-Rush] **Dwarf Spike-Rush**

Few-Flowered Spike-Rush

Four-Angled Spike-Rush

Beaked Spike-Rush

Slender Spike-Rush

[Elephant's-Foot]

[Downey Willow-Herb]

Dwarf Scouring-Rush

[Variegated Horsetail] **Variegated Scouring-Rush**

[Slender Cottongrass] **Slender Cotton-Grass**

[Rough Cottongrass] **Rough Cotton-Grass**

Wild Ipecac

Glade Spurge

Showy Aster

Cluster Fescue

[American Columbo]

Pumpkin Ash

[Labrador Marsh Bedstraw] **Bog Bedstraw**

Dwarf Huckleberry

Cranesbill

[*Glyceria borealis* (Nash) Batchelder] *Glyceria borealis*
(Nash) Batch.

Goodyera tessellata Lodd.

[*Gymnopogon ambiguus* (Michx.) BSP.] *Gymnopogon*
ambiguus (Michx.) Britton, Stearns & Poggenb.

[*Helianthemum bicknellii* Fern.] *Helianthemum bicknellii*
Fernald

[*Hemicarpha micrantha* (Vahl) Britt.]

[*Heteranthera multiflora* (Griseb) Horn. (Gleason, H. A. and
A Cronquist, Manual of Vascular Plants of Northeastern
United States and Adjacent Canada, 1991, Second Edition)]

Heteranthera multiflora (Griseb.) Horn.

Hieracium traillii Greene

Hierochloa odorata (L.) Beauv.

Huperzia porophila (F.E.Lloyd & Underw.) Holub

Hydrophyllum macrophyllum Nutt.

Iodanthus pinnatifidus (Michx.) Steud.

[*Iris cristata* Soland.] *Iris cristata* Sol. ex Aiton

Iris prismatica Pursh

Iris verna L.

Isotria medeoloides (Pursh) Raf.

Juncus brachycarpus Engelm.

[*Juncus dichotomus* Ell.] *Juncus dichotomus* Elliott

Juncus longii Fern.

Juncus militaris Bigelow

Juncus scirpoides Lam.

[*Lespedeza angustifolia* (Pursh) Ell.] *Lespedeza angustifolia*
(Pursh) Elliott

[*Ligusticum canadense* (L.) Britt.] *Ligusticum canadense*
(L.) Britton

[*Linum intercursum* Bickn.] *Linum intercursum*
E.P.Bicknell

Linum sulcatum Riddell

Lipocarpha micrantha (Vahl) G.C.Tucker

Listera australis Lindl.

Listera cordata (L.) R.Br.

[*Listera smallii* Wieg.] *Listera smallii* Wiegand

[*Lithospermum caroliniense* (J. F. Gmel.) MacM.]

Lithospermum caroliniense (J.F.Gmel.) MacMill.

Lithospermum latifolium Michx.

Lobelia kalmii L.

Lobelia puberula Michx.

Lonicera oblongifolia (Goldie) Hook.

[Small-Floating Manna-Grass] *Small*
Floating Mannagrass

Checkered Rattlesnake-Plantain

Broad-Leaved Beardgrass

Bicknell's Hoary Rockrose

[Common *Hemicarpha*]

Multi-Flowered Mud-Plantain

Maryland Hawkweed

Vanilla Sweet-Grass

Sandstone-Loving Firmoss

Large-Leaved Water-Leaf

[Purple Rocket] *Purple-Rocket*

[Crested Dwarf Iris] *Dwarf Crested Iris*

[Slender Blue Iris] *Slender Blue Flag*

Dwarf Iris

Small-Whorled Pogonia

Short-Fruited Rush

Forked Rush

Long's Rush

Bayonet Rush

Scirpus-Like Rush

[Narrowleaf Bushclover] *Narrow-*
Leaved Bush-Clover

Nondo Lovage

Sandplain Wild Flax

[Grooved-Yellow Flax] *Grooved*
Yellow Flax

Common Hemicarpha

Southern Twayblade

[Heart-Leaved Twayblade] *Heartleaf*
Twayblade

Kidney-Leaved Twayblade

Hispid Gromwell

American Gromwell

Brook Lobelia

Downy Lobelia

[Swamp Fly Honeysuckle] *Swamp Fly-*
Honeysuckle

[*Lonicera villosa* (Michx.) Roemer & Schultes] *Lonicera villosa* (Michx.) Roem. & Schult.

[*Ludwigia decurrens* Walt.] *Ludwigia decurrens* Walter

Ludwigia polycarpa Short & Peter

Lycopodiella alopecuroides (L.) Cranfill

Lycopodiella margueritae J.G.Bruce, W.H.Wagner & Beitel

[*Lycopodium alopecuroides* L.]

[*Lycopodium porophilum* Lloyd & Underwood]

[*Lycopus rubellus* Moench] *Lycopus rubellus* Moench.

[*Lyonia mariana* (L.) D. Don] *Lyonia mariana* (L.) D.Don

Malaxis bayardii Fernald

[*Marshallia grandiflora* Beadle & F. E. Boynton] *Marshallia grandiflora* Beadle & F.E.Boynton

[*Matelea obliqua* (Jacq.) Woods.] *Matelea obliqua* (Jacq.)

Woodson

[*Megalodonta beckii* (Torr. ex Spreng.) Greene]

Mitella nuda L.

Monarda punctata L.

Montia chamissoi (Ledeb. ex Spreng.) Greene

Muhlenbergia uniflora (Muhl.) Fern.

[*Myriophyllum exalbescens* Fern.]

Myriophyllum farwellii Morong

[*Myriophyllum heterophyllum* Michx.]

Myriophyllum sibiricum Komarov

Myriophyllum verticillatum L.

Najas marina L.

[*Nelumbo lutea* (Willd.) Pers.]

Oclemena nemoralis (Aiton) E.Greene

[*Onosmodium hispidissimum* Mackenzie] *Onosmodium molle* Michx. var. *hispidissimum* (Mack.) Cronquist

Ophioglossum engelmannii Prantl

[*Oryzopsis pungens* (Torr. ex Spreng.) A. S. Hitchc.]

Packera antennariifolia (Britton) W.A.Weber & Á.Löve

[*Panicum amarum* Ell. var. *amarulum* (A. S. Hitchc. & Chase)

P. G. Palmer (Morris Arboretum, 1992, Pennsylvania Flora

Database)] *Panicum amarum* Elliott var. *amarulum*

(A.Hitchc. & Chase) P.G.Palmer

[*Panicum scoparium* (Lam.) Gould (Morris Arboretum, 1992,

Pennsylvania Flora Database)]

[*Panicum xanthophysum* (Gray) Freckmann (Morris

Arboretum, 1992, Pennsylvania Flora Database)]

Parnassia glauca Raf.

Passiflora lutea L.

[Mountain Fly Honeysuckle] Mountain Fly-Honeysuckle

Upright Primrose-Willow

False Loosestrife Seedbox

Foxtail Bog Clubmoss

Marguerite's Clubmoss

[Foxtail Clubmoss]

[Rock Clubmoss]

Taper-Leaved Bugle-Weed

[Stagger-Bush] Staggerbush

Adder's-Mouth

Large-Flowered Marshallia

Oblique Milkvine

[Beck's Water-Marigold]

Naked Bishop's-Cap

Spotted Bee-Balm

Chamisso's Miner's-Lettuce

Fall Dropseed Muhly

[Northern Water-Milfoil]

Farwell's Water-Milfoil

[Broad-Leaved Water-Milfoil]

Northern Water-Milfoil

Whorled Water-Milfoil

Holly-Leaved Naiad

[American Lotus]

Leafy Bog Aster

False Gromwell

[Limestone Adder's Tongue] Limestone

Adder's-Tongue

[Slender Mountain-Ricegrass]

Cat's-Paw Ragwort

[Southern Sea-Beach Panic-Grass]

Beachgrass

[Velvety Panic-Grass]

[Slender Panic-Grass]

[Carolina Grass-of-Parnassus] Grass-of-

Parnassus

Passion-Flower

[<i>Paxistima canbyi</i> A. Gray] <u><i>Paxistima canbyi</i> A.Gray</u>	Canby's Mountain-Lover
<u><i>Pericaria careyi</i> (Olney) Greene</u>	<u>Carey's Smartweed</u>
<u><i>Pericaria setacea</i> (Baldwin) Small</u>	<u>Swamp Smartweed</u>
<i>Phlox ovata</i> L.	Mountain Phlox
<i>Phlox subulata</i> L. ssp. <i>brittonii</i> (Small) Wherry	Moss Pink
<u><i>Piptatherum pungens</i> (Torr. ex Spreng.) Dorn</u>	<u>Slender Mountain Ricegrass</u>
<u><i>Platanthera aquilonis</i> Sheviak, Lindleyana {Source: <i>Flora of North America</i>}</u>	<u>Northern Green Orchid</u>
<i>Platanthera dilatata</i> (Pursh) Lindl. ex Beck	[Leafy White Orchid] <u>Tall White Bog-Orchid</u>
<u><i>Platanthera huronensis</i> (Nutt.) Lindl.</u>	<u>Huron Green Orchid</u>
[<i>Platanthera hyperborea</i> (L.) Lindl.]	[Leafy Northern Green Orchid]
[<i>Poa autumnalis</i> Muhl. ex Ell.] <u><i>Poa autumnalis</i> Muhl. ex Elliott</u>	Autumn Bluegrass
[<i>Polemonium vanbruntiae</i> Britt.] <u><i>Polemonium van-bruntiae</i> Britton</u>	Jacob's-Ladder
<i>Polygala cruciata</i> L.	Cross-Leaved Milkwort
[<i>Polygala curtissii</i> Gray] <u><i>Polygala curtissii</i> A.Gray</u>	Curtis' Milkwort
<i>Polygala incarnata</i> L.	Pink Milkwort
[<i>Polygonum careyi</i> Olney]	[Carey's Smartweed]
[<i>Polygonum setaceum</i> Baldw. ex Ell. var. <i>interjectum</i> Fern.]	[Swamp Smartweed]
[<i>Polystichum braunii</i> (Spenner) Fee] <u><i>Polystichum braunii</i> (Spenn.) Fee</u>	Braun's Holly Fern
<i>Populus balsamifera</i> L.	Balsam Poplar
<i>Potamogeton friesii</i> Rupr.	Fries' Pondweed
<i>Potamogeton gramineus</i> L.	Grassy Pondweed
<i>Potamogeton hillii</i> Morong	Hill's Pondweed
<i>Potamogeton obtusifolius</i> Mert. & Koch	Blunt-Leaved Pondweed
[<i>Potamogeton pulcher</i> Tuckerman] <u><i>Potamogeton pulcher</i> Tuck.</u>	Spotted Pondweed
[<i>Potamogeton strictifolius</i> Benn.] <u><i>Potamogeton strictifolius</i> A.Benn.</u>	Narrow-Leaved Pondweed
[<i>Potamogeton tennesseeensis</i> Fern.] <u><i>Potamogeton tennesseeensis</i> Fernald</u>	Tennessee Pondweed
[<i>Potamogeton vaseyi</i> J. W. Robbins] <u><i>Potamogeton vaseyi</i> J.W.Robbins</u>	Vasey's Pondweed
<i>Potentilla fruticosa</i> L.	Shrubby Cinquefoil
[<i>Potentilla paradoxa</i> Nutt. ex Torr. & Gray] <u><i>Potentilla paradoxa</i> Nutt</u>	Bushy Cinquefoil
[<i>Potentilla tridentata</i> (Soland) Ait.] <u><i>Potentilla tridentata</i> Aiton</u>	Three-Toothed Cinquefoil
[<i>Prenanthes crepidinea</i> Michx.]	[Crepis Rattlesnake-Root]
[<i>Prunus maritima</i> Marsh.] <u><i>Prunus maritima</i> Marshall</u>	Beach Plum
<i>Prunus nigra</i> Ait.	Canada Plum
<i>Ptilimnium capillaceum</i> (Michx.) Raf.	Mock Bishop-Weed
[<i>Pycnanthemum pycnanthemoides</i> (Leavenw.) Fern.]	[Southern Mountain-Mint]

Pycnanthemum torrei Benth.
Quercus falcata Michx.
Quercus phellos L.
 [*Quercus shumardii* Buckl.] *Quercus shumardii* Buckley
 [*Ranunculus fascicularis* Muhl. ex Bigelow] *Ranunculus fascicularis* Muhl. ex J.M. Bigelow
Ratibida pinnata (Vent.) Barnhart
Rhamnus lanceolata Pursh
Rhexia mariana L.
 [*Rhododendron atlanticum* (Ashe) Rehd.] *Rhododendron atlanticum* (Ashe) Rehder

Rhynchospora capillacea Torr.
 [*Ribes missouriense* Nutt. ex Torr. & Gray] *Ribes missouriense* Nutt. ex Torr. & A. Gray
Rubus cuneifolius Pursh
Ruellia humilis Nutt.
 [*Sagittaria calycina* Engelm. var. *spongiosa* Engelm.]
Sagittaria calycina Engelm.
Scheuchzeria palustris L.
Schoenoplectus acutus (Muhl. ex Bigel.) Löve & Löve
Schoenoplectus smithii (A. Gray) Sojak
Schoenoplectus torreyi (Olney) Palla
 [*Scirpus acutus* Muhl. ex Bigelow]

Scirpus ancistrochaetus Schuyler
 [*Scirpus smithii* Gray]
 [*Scirpus torreyi* Olney]
 [*Scleria minor* (Britt.) W. Stone] *Scleria minor* (Britton) Stone

 [*Scleria reticularis* Michx.] *Scleria muhlenbergii* Steud.
Scleria verticillata Muhl. ex Willd.
Sedum rosea (L.) Scop.
 [*Senecio antennariifolius* Britt.]
Sericocarpus linifolius (L.) Britton, Stearns & Poggenb.
Shepherdia canadensis (L.) Nutt.
Sida hermaphrodita (L.) Rusby
 [*Sisyrinchium atlanticum* Bickn.] *Sisyrinchium atlanticum* E.P. Bicknell
 [*Solidago arguta* Ait. var. *harrisii* (Steele) Cronq.] *Solidago arguta* Aiton var. *harrisii* (E.S. Steele) Cronquist
 [*Solidago curtissii* Torr. & Gray] *Solidago curtissii* Torr. & A. Gray
 [*Solidago erecta* Pursh] *Solidago erecta* Banks ex Pursh

Torrey's Mountain-Mint
 [Spanish Oak] Southern Red Oak
 Willow Oak
 [Shumard's Oak] Shumard Oak

 Tufted Buttercup
Gray-Headed Prairie Coneflower
 Lanceolate Buckthorn
 Maryland Meadow-Beauty

 Dwarf Azalea
 [Capillary Beaked-Rush] Capillary Beak-Rush

 Missouri Gooseberry
Sand Blackberry
 Fringed-Leaved Petunia
 [Long-Lobed Arrow-Head] Long-Lobed Arrowhead
 Pod-Grass
Hard-Stemmed Bulrush
Smith's Bulrush
Torrey's Bulrush
 [Hard-Stemmed Bullrush]
 [Northeastern Bullrush] Northeastern Bulrush
 [Smith's Bullrush]
 [Torrey's Bullrush]

 [Minor Nutrush] Small Nut-Rush
 [Reticulated Nutrush] Reticulated Nut-Rush
 [Whorled Nutrush] Whorled Nut-Rush
 Roseroot Stonecrop
 [Cat's-Paw Ragwort]
Narrow-Leaved White-Topped Aster
 Canada Buffalo-Berry
 [Sida] Virginia Mallow
 [Eastern Blue-Eyed Grass] Eastern Blue-Eyed-Grass

 Harris' Goldenrod
 Curtis' Goldenrod
 Slender Goldenrod

[<i>Solidago spathulata</i> DC. ssp. <i>randii</i> var. <i>racemosa</i> (Greene) Gleason]	<u><i>Solidago simplex</i> Kunth ssp. <i>randii</i> (Porter)</u>	Sticky Goldenrod
	<u>Ringius var. <i>racemosa</i> (Greene) Ringius</u>	Showy Mountain-Ash
<i>Sorbus decora</i> (Sarg.) Schneid.		Branching Bur-Reed
<i>Sparganium androcladum</i> (Engelm.) Morong		Case's Ladies'-Tresses
<i>Spiranthes casei</i> Catling & Cruise		October Ladies'-Tresses
<i>Spiranthes ovalis</i> Lindl.		Hooded Ladies'-Tresses
<i>Spiranthes romanzoffiana</i> Cham.		Spring Ladies'-Tresses
[<i>Spiranthes vernalis</i> Engelm. & Gray]	<u><i>Spiranthes vernalis</i> Engelm. & A.Gray</u>	
	[<i>Sporobolus clandestinus</i> (Biehler) A. S. Hitchc.]	<u><i>Sporobolus clandestinus</i> (Biehler) A.Hitchc.</u>
	[<i>Sporobolus cryptandrus</i> (Torr.) Gray]	<u><i>Sporobolus cryptandrus</i> (Torr.) A.Gray</u>
	[<i>Sporobolus heterolepis</i> (Gray) Gray]	<u><i>Sporobolus heterolepis</i> (A.Gray) A.Gray</u>
	[<i>Stachys nuttallii</i> Shuttlw. ex Benth.]	<u><i>Stachys nuttallii</i> Shuttlew. ex Benth.</u>
	<u><i>Swertia caroliniensis</i> (Walter) Kuntze</u>	Nuttall's Hedge-Nettle
	<u><i>Symphytotrichum boreale</i> (Torr. & Gray) Á.Löve & D.Löve</u>	<u>American Columbo</u>
[<i>Taenidia montana</i> (Mackenzie) Cronq. (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)]		<u>Northern Bog Aster</u>
	<u><i>Taenidia montana</i> (Mack.) Cronquist</u>	
<i>Thalictrum coriaceum</i> (Britt.) Small		Mountain Pimpernel
[<i>Tomanthera auriculata</i> (Michx.) Raf.]		Thick-Leaved Meadow-Rue
		[Eared False-Foxglove]
		[Blue-Curls] <u>Narrow-Leaved Blue-Curls</u>
		[Kate's Mountain Clover] <u>Kate's-Mountain Clover</u>
<i>Trichostema setaceum</i> Houtt.		
		Nodding Pogonia
<i>Trifolium virginicum</i> Small		
[<i>Triphora trianthophora</i> (Sw.) Rydb.]	<u><i>Triphora trianthophora</i> (Swartz) Rydb.</u>	
	[<i>Triplasis purpurea</i> (Walt.) Chapman]	<u><i>Triplasis purpurea</i> (Walter) Chapm.</u>
	[<i>Trollius laxus</i> Salisb. ssp. <i>laxus</i>]	<u><i>Trollius laxus</i> Salisb.</u>
<i>Veronia glauca</i> (L.) Willd.		
<i>Viburnum nudum</i> L.		
<i>Viola brittoniana</i> Pollard		
[<i>Viola pedatifida</i> G. Don]		
[<i>Vitis novae-angliae</i> Fern.]	<u><i>Vitis novae-angliae</i> Fernald</u>	
	<u><i>Vitis rupestris</i> Scheele</u>	<u>Sand Grape</u>
	<u><i>Zigadenus glaucus</i> (Nutt.) Nutt.</u>	<u>White Camas</u>

§ 45.13. Pennsylvania Threatened.

Plant species classified as Pennsylvania Threatened are as follows:

Scientific Name:

Aconitum uncinatum L.
Actaea podocarpa DC
[*Ammophila breviligulata* Fern.] **Ammophila breviligulata Fernald**
[*Arceuthobium pusillum* M. E. Peck] **Arceuthobium pusillum Peck**
Aristida purpurascens Poir.
[*Asplenium bradleyi* D. C. Eat.] **Asplenium bradleyi D.C.Eaton**
[*Aster depauperatus* (Porter) Fern.]
[*Aster novi-belgii* L.]
Baptisia australis (L.) R.Br.
Bidens bidentoides (Nutt.) Britt.
Bouteloua curtipendula (Michx.) Torr.
Camassia scilloides (Raf.) Cory
Carex alata Torr.
Carex aquatilis Wahlenb.
[*Carex cryptolepis* Mackenzie] **Carex cryptolepis Mack.**
Carex diandra Schrank
Carex flava L.
Carex oligosperma Michx.
Carex paupercula Michx.
Carex prairea Dewey
[*Carex schweinitzii* Dewey ex Schwein.] **Carex schweinitzii Schwein.**
Carex sterilis Willd.
Carex tetanica Schkuhr
[*Carex wiegandii* Mackenzie] **Carex wiegandii Mack.**
Chamaesyce polygonifolia (L.) Small
[*Chrysopsis mariana* (L.) Ell.] **Chrysopsis mariana (L.) Elliott**
[*Cimicifuga americana* Michx.]
[*Cypripedium reginae* Walt.] **Cypripedium reginae Walter**
Digitaria cognatum (Schultes) Pilger
Dodecatheon amethystinum (Fassett) Fassett
[*Eleocharis intermedia* Schultes] **Eleocharis intermedia (Muhl.) Schult.**
Eleocharis robbinsii Oakes
Ellisia nyctelea L.
Erigenia bulbosa (Michx.) Nutt.
[*Eriophorum viridicarinatum* (Engelm.) Fern.] **Eriophorum viridicarinatum (Engelm.) Fernald**
[*Euthamia tenuifolia* (Pursh) Greene] **Euthamia caroliniana (L.) Greene ex Porter & Britton**

Common Name:

Blue Monkshood
American Bugbane
American Beachgrass
Dwarf Mistletoe
Arrow-Feather Three-Awned Grass
Bradley's Spleenwort
[Serpentine Aster]
[Long-Leaved Aster]
Blue False Indigo
Swamp Beggar-Ticks
Tall Gramma
Wild Hyacinth
Broad-Winged Sedge
Water Sedge
Northeastern Sedge
Lesser Panicked Sedge
Yellow Sedge
Few-Seeded Sedge
Bog Sedge
Prairie Sedge
Schweinitz's Sedge
Atlantic Sedge
Wood's Sedge
Wiegand's Sedge
[Small Sea-Side Spurge] **Seaside Spurge**
Maryland Golden-Aster
[Mountain Bugbane]
Showy Lady's-Slipper
Fall Witch-Grass
Jeweled Shooting-Star
Matted Spike-Rush
Robbins' Spike-Rush
Ellisia
Harbinger-of-Spring
Thin-Leaved Cottongrass
Grass-Leaved Goldenrod

[<i>Fimbristylis annua</i> (All.) Roemer & Schultes] <u><i>Fimbristylis annua</i> (All.) Roem. & Schult.</u>	Annual Fimbry
[<i>Gaylussacia brachycera</i> (Michx.) Gray] <u><i>Gaylussacia brachycera</i> (Michx.) A.Gray</u>	Box Huckleberry
<i>Hypericum densiflorum</i> Pursh	Bushy St. John's-Wort
[<i>Hypericum majus</i> (Gray) Britt.] <u><i>Hypericum majus</i> (A. Gray)</u> <u>Britton</u>	[Larger Canadian St. John's-Wort] <u>Canadian St. John's-Wort</u>
[<i>Ilex opaca</i> Ait.] <u><i>Ilex opaca</i> Aiton</u>	American Holly
[<i>Juncus alpinus</i> Vill.] <u><i>Juncus alpinoarticulatus</i> Chaix in Vill. ssp. nodulosus (Wahlenb.) Hämet-Ahti.</u>	Richardson's Rush
[<i>Juncus balticus</i> Willd.] <u><i>Juncus arcticus</i> Willd. var. littoralis (Engelm.) Boivin.</u>	Baltic Rush
[<i>Juncus brachycephalus</i> (Engelm.) Buch.] <u><i>Juncus brachycephalus</i> (Engelm.) L.Buch.</u>	Small-Headed Rush
<i>Juncus torreyi</i> Coville	Torrey's Rush
<i>Lathyrus japonicus</i> Willd.	[Beach Peavine] <u>Beach Pea</u>
<i>Lathyrus ochroleucus</i> Hook.	Wild Pea
<i>Linnaea borealis</i> L.	Twinflower
<i>Lobelia dortmanna</i> L.	Water Lobelia
<u><i>Lycopodiella appressa</i> (Chapm.) Cranfill</u>	<u>Appressed Bog Clubmoss</u>
[<i>Lycopodium appressum</i> (Chapman) Lloyd & Underwood]	[Southern Bog Clubmoss]
<i>Magnolia tripetala</i> (L.) L.	Umbrella Magnolia
<i>Magnolia virginiana</i> L.	[Sweet Bay Magnolia] <u>Sweetbay Magnolia</u>
[<i>Melica nitens</i> (Scribn.) Nutt. ex Piper] <u><i>Melica nitens</i> Nutt.</u>	Three-Flowered Melic Grass
<i>Minuartia glabra</i> (Michx.) Mattf.	Appalachian Sandwort
<i>Myrica gale</i> L.	[Sweet Bayberry] <u>Sweet-gale</u>
<i>Myriophyllum tenellum</i> Bigelow	Slender Water-Milfoil
<i>Najas gracillima</i> (A. Braun) Magnus	Bushy Naiad
[<i>Nymphoides cordata</i> (Ell.) Fern.] <u><i>Nymphoides cordata</i> (Elliott) Fernald</u>	Floating-Heart
[<i>Oenothera argillicola</i> Mackenzie] <u><i>Oenothera argillicola</i> Mack.</u>	Shale-Barren Evening-Primrose
[<i>Panicum tuckermanii</i> Fern. (Fernald, M. L., Gray's Manual of Botany, 1970, Eighth edition)] <u><i>Panicum tuckermanii</i> Fernald</u>	Tuckerman's Panic-Grass
<u><i>Phemeranthus teretifolius</i> (Pursh) Raf.</u>	<u>Round-Leaved Fameflower</u>
<u><i>Platanthera peramoena</i> (A.Gray) A.Gray</u>	<u>Purple Fringeless Orchid</u>
[<i>Poa paludigena</i> Fern. & Wieg.] <u><i>Poa paludigena</i> Fernald & Wiegand</u>	Bog Bluegrass
[<i>Polygonum robustius</i> (Small) Fern.]	[Robust Smartweed]
<i>Potamogeton confervoides</i> Reichenb.	Tuckerman's Pondweed
<i>Potamogeton richardsonii</i> (Benn.) Rydb.	Red-Head Pondweed
[<i>Potentilla anserina</i> L.]	[Silverweed]
<i>Ptelea trifoliata</i> L.	[Common Hop-Tree] <u>Hoptree</u>

[*Ranunculus longirostre* Godr.] *Ranunculus longirostris*

Godron

Ribes triste Pallas

Ruellia strepens L.

Salix candida Flugge ex Willd.

[*Salix serissima* (Bailey) Fern.] *Salix serissima* (Bailey)

Fernald

[*Scirpus pedicellatus* Fern.] *Scirpus pedicellatus* Fernald

Scleria pauciflora Muhl. ex Willd.

Solidago uliginosa Nutt.

[*Spiraea betulifolia* Pallas ssp. *corymbosa* (Raf.) Taylor & MacBryde] *Spiraea betulifolia* Pallas var. *corymbosa* (Raf.)

Maxim.

[*Streptopus amplexifolius* (L.) DC.] *Streptopus amplexifolius* (L.) DC

Symphotrichum depauperatum (Fernald) Nesom

Symphotrichum novi-belgii (L.) Nesom var. *novi-belgii*

[*Talinum teretifolium* Pursh]

[*Utricularia intermedia* Hayne.] *Utricularia intermedia*

Hayne

[*Utricularia minor* L.]

[*Viola appalachensis* Henry] *Viola appalachensis* L.K.

Henry

[*Vittaria appalachiana* Farrar & Mickel (Morris Arboretum, 1992, Pennsylvania Flora Database)] *Vittaria appalachiana*

Farrar & Mickel

Eastern White Water-Crowfoot

[Red Currant] Wild Red Currant

Limestone Petunia

Hoary Willow

Autumn Willow

[Stalked Bullrush] Stalked Bulrush

Few-Flowered Nutrush

Bog Goldenrod

Dwarf Spiraea

[White Twisted-Stalk] Twisted-Stalk

Serpentine Aster

New York Aster

[Round-Leaved Fame-Flower]

Flat-Leaved Bladderwort

[Lesser Bladderwort]

Appalachian Blue Violet

Appalachian Grass-Fern

§ 45.14. Pennsylvania Rare.

Plant species classified as Pennsylvania Rare are as follows:

Scientific Name:

Amaranthus cannabinus (L.) Sauer

Andromeda polifolia L.

Aplectrum hyemale (Muhl. ex Willd.) Nutt.

Baccharis halimifolia L.

[*Cakile edentula* (Bigel.) Hook.] *Cakile edentula*

(Bigelow) Hook.

Carex disperma Dewey

Carex lasiocarpa Ehrh.

Collinsia verna Nutt.

Cyperus engelmannii Steud.

Cyperus schweinitzii Torr.

Dichanthelium commonsianum (Ashe) Freckmann var. *euchlamydeum* (Shinners) Pohl

Common Name:

[Waterhemp Ragweed] Water-Hemp Ragweed

Bog-Rosemary

Puttyroot

Eastern Baccharis

American Sea-Rocket

Soft-Leaved Sedge

[Slender Sedge] Many-Fruited Sedge

Spring Blue-Eyed Mary

Engelmann's Flatsedge

Schweinitz's Flatsedge

Cloaked Panic Grass

Eleocharis olivacea Torr.
Epilobium strictum Muhl.
Gaultheria hispidula (L.) Muhl. ex Bigelow
Juncus filiformis L.
 [*Juncus gymnocarpus* Coville]
Ledum groenlandicum Oeder
Lupinus perennis L.
Lygodium palmatum (Bernh.) Sw.
 [*Malaxis bayardii* Fern. (Fernald, M. L., Gray's Manual of Botany, 1970, Eighth edition)]
Menziesia pilosa (Michx.) Juss.

Opuntia humifusa (Raf.) Raf.
Orontium aquaticum L.
Packera anonyma (A.W.Wood) W.A.Weber & Á.Löve
 [*Panicum commonsianum* Ashe var. *euchlamydeum* (Skinner) Pohl (Morris Arboretum, 1992, Pennsylvania Flora Database)]
Potamogeton robbinsii Oakes
 [*Potamogeton zosteriformis* Fern.] *Potamogeton zosteriformis* Fernald
Potentilla anserina L.
 [*Prunus pumila* L.] *Prunus pumila* L. var. *pumila*
Pyrularia pubera Michx.
Ranunculus micranthus (Gray) Nutt. ex Torr. & Gray
Rotala ramosior (L.) Koehne
 [*Sagittaria subulata* (L.) Buch.] *Sagittaria subulata* (L.) L.Buch.
Schizachyrium scoparium (Michx.) Nash var. *littorale* (Nash) Gould
Schoenoplectus fluviatilis (Torr.) Strong
 [*Scirpus fluviatilis* (Torr.) Gray]
Sedum telephioides Michx.
 [*Senecio anonymus* Wood]
Solidago roanensis Porter
Tipularia discolor (Pursh) Nutt.
 [*Trautvetteria caroliniensis* (Walt.) Vail]
Trillium nivale Riddell
 [*Utricularia purpurea* Walt.]
Wolffiella gladiata (Hegelm.) Hegelm.
Xyris montana Ries.
Zizania aquatica L.

Capitate Spike-Rush
Downy Willow-Herb
 Creeping Snowberry
 Thread Rush
 [Coville's Rush]
 Common Labrador-Tea
 [Lupine] Blue Lupine
 Hartford Fern

 [Bayard's Malaxis]
 Minniebush
 [Prickly-Pear Cactus] Eastern Prickly-Pear Cactus
 Golden Club
Appalachian Groundsel

 [Cloaked Panic-Grass]
 Flat-Leaved Pondweed

 Flat-Stemmed Pondweed
Silverweed
 Sand Cherry
 Buffalo-Nut
 Small-Flowered Crowfoot
 [Tooth-Cup] Toothcup
 [Subulata Arrow-Head] Subulate Arrowhead

 Seaside Bluestem
River Bulrush
 [River Bullrush]
 Allegheny Stonecrop
 [Plain Ragwort]
 Tennessee Golden-Rod
 Cranefly Orchid
 [Carolina Tassel-Rue]
 Snow Trillium
 [Purple Bladderwort]
 Bog-mat
 Yellow Eyed Grass
 Indian Wild Rice

§ 45.15. Pennsylvania Vulnerable.

Plant species classified as Vulnerable are as follows:

Scientific Name:

[*Cypripedium pubescens* Willd.] *Cypripedium parviflorum*
Salisb. var. *pubescens* (Willd.) Correll

Hydrastis canadensis L.

Panax quinquefolius L.

Common Name:

[Yellow Lady's-Slipper] Large
Yellow Lady's-Slipper

[Golden-Seal] Goldenseal

Ginseng

§ 45.20. Special Concern Population.

As of January 1, 1988, no plant species have been listed solely within the classification of Special Concern Population.

§ 45.21. Tentatively Undetermined.

Plant species classified as Tentatively Undetermined are as follows:

Scientific Name:

Adiantum pedatum L. ssp. *caulderi* Cody

Agalinis obtusifolia Raf.

Aletris farinosa L.

Ambrosia psilostachya DC.

[*Amelanchier humilis* Wieg.] *Amelanchier humilis*
Wiegand

Amelanchier obovalis (Michx.) Ashe

Amelanchier sanguinea (Pursh) DC.

[*Andropogon glomeratus* (Walt.) BSP.] *Andropogon*
glomeratus (Walter) Britton, Stearns & Poggenb.

Antennaria solitaria Rydb.

Arabis hirsuta (L.) Scop.

[*Aristida curtissii* (Gray) Nash] *Aristida dichotoma*
Michx. var. *curtissii* A.Gray

[*Aristida longespica* Poir. var. *geniculata* (Raf.) Fern.]

Aristida longespica Poir. var. *geniculata* (Raf.)
Fernald

Aristolochia macrophylla Lam.

[*Asclepias variegata* L.]

[*Aster dumosus* L.]

[*Aster ericoides* L.]

[*Aster firmus* Nees]

Carex buxbaumii Wahlenb.

[*Carex crawfordii* Fern.] *Carex crawfordii* Fernald

Carex haydenii Dewey

Carex limosa L.

[*Carex longii* Mackenzie] *Carex longii* Mack.

Common Name:

Northern Maidenhair Fern

False-Foxglove

Colic-Root

Naked-Spiked Ambrosia

Low Serviceberry

Coastal Juneberry

[Roundleaf Serviceberry] Roundleaf
Juneberry

Bushy Bluestem

Single-Headed Pussy-Toes

Western Hairy Rock-Cress

Poverty Grass

Long-Spike Three-Awned Grass

Pipevine

[White Milkweed]

[Bushy Aster]

[White Heath Aster]

[Firm Aster]

Brown Sedge

Crawford's Sedge

Cloud Sedge

Mud Sedge

Long's Sedge

[*Carex lupuliformis* Sartwell ex Dewey] **Carex lupuliformis Sartwell**
Carex meadii Dewey
 [*Carex mesochorea* Mackenzie] **Carex mesochorea Mack.**
 [*Cassia marilandica* L.]
Castilleja coccinea (L.) Spreng.
 [*Chasmanthium latifolium* (Michx.) Yates]
Chasmanthium latifolium (Michx.) H.O.Yates
 [*Chenopodium capitatum* (L.) Aschers.]
Chenopodium capitatum (L.) Asch.
 [*Coeloglossum viride* (L.) Hartman]
Corallorrhiza wisteriana Conrad
Crataegus brainerdii Sarg.
 [*Crataegus mollis* (Torr. & Gray) Scheele] **Crataegus mollis (Torr. & A.Gray) Scheele**
Cuscuta cephalanthi Engelm.
Cuscuta corylii Engelm.
Cuscuta polygonorum Engelm.
Cyperus odoratus L.
Cyperus tenuifolius (Steud.) Dandy
 [*Cystopteris laurentiana* (Weatherby) Blasdell]
Cystopteris laurentiana (Weath.) Blasdell
 [*Desmodium glabellum* (Michx.) DC.] **Desmodium glabellum (Michx.) Kuntze**
Desmodium nuttallii (Schindl.) Schub.
Dichantherium annulum (Ashe) LeBlond
Dichantherium boreale (Nash) Freckmann
Dichantherium commonsianum (Ashe) Freckmann
Dichantherium lucidum (Ashe) LeBlond
Dichantherium villosissimum (Nash) Freckmann
Dichantherium yadkinense (Ashe) Mohlenbr.
Dracocephalum parviflorum Nutt.
 [*Elatine minima* (Nutt.) Fisch. & Mey] **Elatine minima (Nutt.) Fisch. & C.A.Mey**
 [*Elodea canadensis* L. C. Rich.]
Elymus virginicus L. var. *submuticus* Hook.
Epilobium palustre L.
Eupatorium rotundifolium L.
 [*Filipendula rubra* (Hill) B. L. Robins.] **Filipendula rubra (Hill) B.L.Rob.**
 [*Gentiana alba* Muhl.] **Gentiana alba Muhl. ex Nutt.**
Gentiana saponaria L.
Gentiana villosa L.
Glyceria acutiflora Torr.
 [*Goodyera tessellata* Lodd.]

False Hop Sedge
 Mead's Sedge
 Midland Sedge
 [Wild Senna]
 Scarlet Indian Paintbrush
 [Wild Oat] **Wild-Oats**
 Strawberry Goosefoot
 [Long-Bracted Green Orchid]
 Spring Coral-Root
 Brainerd's Hawthorne
 Downy Hawthorne
 [Button-Bush Dodder] **Buttonbush Dodder**
 Hazel Dodder
 Smartweed Dodder
 Rusty Flatsedge
 Thin-Leaved Flatsedge
 Laurentian Bladder-Fern
 Tall Tick-Trefoil
 Nuttall's Tick-Trefoil
Annulus Panic Grass
Northern Panic Grass
Cloaked Panic Grass
Shining Panic Grass
Long-Haired Panic Grass
Yadkin River Panic Grass
 American Dragonhead
 [Small Water-Wort] **Small Waterwort**
 [Broad Waterweed (Male Plants)]
 Wild Rye
 Marsh Willow-Herb
 Round-Leaved Thoroughwort
 Queen-of-the-Prairie
 Yellow Gentian
 Soapwort Gentian
 Striped Gentian
 Sharp-Flowered Manna-Grass
 [Checkered Rattlesnake-Plantain]

[*Gratiola aurea* Pursh] **Gratiola aurea Muhl. ex Pursh**
 [Gymnocarpium appalachianum Pryer & Windham (Morris Arboretum, 1992, Pennsylvania Flora Database)] **Gymnocarpium appalachianum K.M.Pryer & Haufler**
 [*Hedyotis purpurea* (L.) Torr. & Gray] **Houstonia purpurea L. var. purpurea**
 [*Hypericum drummondii* (Grev. & Hook) Torr. & Gray] **Hypericum drummondii (Grev. & Hook) Torr. & A.Gray**
 [*Juncus biflorus* Elliott (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)] **Juncus biflorus Elliott**
Lathyrus palustris L.
 [*Lemna turionifera* Landolt (Morris Arboretum, 1992, Pennsylvania Flora Database)] **Lemna turionifera Landolt**
 [*Leucothoe racemosa* (L.) Gray] **Leucothoe racemosa (L.) A.Gray**
Liatris scariosa (L.) Willd.
 [*Liatris scariosa* (L.) Willd. var. *novae-angliae* Lunell]
 [*Liatris scariosa* (L.) Willd. var. *nieuwlandii* Lunell]
 [*Lonicera hirsuta* Eat.] **Lonicera hirsuta Eaton**
 [*Luzula bulbosa* (Wood) Rybd.] **Luzula bulbosa (A.W.Wood) Rybd.**
 [*Lysimachia quadriflora* Sims.]
Lythrum alatum Pursh
 [*Malaxis brachypoda* (Gray) Fern.] **Malaxis monophyllos (L.) Swartz var. brachypoda (A.Gray) F.Morris & E.A. Eames**
 [*Meehania cordata* (Nutt.) Britt.] **Meehania cordata (Nutt.) Britton**
 [*Muhlenbergia cuspidata* (Nutt.) Rydb.] **Muhlenbergia cuspidata (Torr.) Rydb.**
 [*Nuphar lutea* (L.) Sibthorp & Sm. ssp. *pumilum* (Timm) E.O. Beal] **Nuphar microphylla (Pers.) Fernald**
Oenothera pilosella Raf.
Oxydendrum arboreum (L.) DC.
Oxypolis rigidior (L.) Raf.
Packera plattensis (Nutt.) W.A.Weber & Á.Löve
 [*Panicum annulum* Ashe (Morris Arboretum, 1992, Pennsylvania Flora Database)]
 [*Panicum bicknellii* Nash (Fernald, M. L., Gray's Manual of Botany, 1970, Eighth edition)]

Golden Hedge-Hyssop

Appalachian Oak Fern

[Purple Bluet] **Purple Bluets**

Nits-and-Lice

Grass-Leaved Rush

Vetchling

Winter Duckweed

Swamp Dog-Hobble

Northern Blazing-Star

[New England Gay-Feather]

[Nieuwland's Gay-Feather]

Hairy Honeysuckle

[Common Wood-Rush] **Wood-Rush**

[Four-Flowered Loosestrife]

Winged Loosestrife

[White Adder's Mouth] **White Adder's-Mouth**

[Heartleaf Meehania] **Heart-Leafed Meehania**

Sharp-Pointed Muhly

[Yellow Cowlily] **Small Yellow Pond-Lily**

Evening-Primrose

Sourwood

Stiff Cowbane

Prairie Ragwort

[Annulus Panic-Grass]

[Bicknell's Panic-Grass]

[*Panicum boreale* Nash (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)]

[*Panicum commonsianum* Ashe var. *commonsianum* (Morris Arboretum, 1992, Pennsylvania Flora Database)]

[*Panicum flexile* (Gattinger) Scribn. (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)] ***Panicum flexile* (Gatt.) Scribn.**

[*Panicum longifolium* Torr. (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)] ***Panicum longifolium* Torr.**

[*Panicum longiligulatum* Nash (Morris Arboretum, 1992, Pennsylvania Flora Database)]

[*Panicum lucidum* Ashe (Fernald, M. L., Gray's Manual of Botany, 1970, Eighth edition)]

[*Panicum recognitum* Fern. (Morris Arboretum, 1992, Pennsylvania Flora Database)]

[*Panicum villosissimum* Nash (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)]

[*Panicum yadkinense* Ashe (Gleason, H. A. and A. Cronquist, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, 1991, Second Edition)]

[*Paronychia fastigiata* (Raf.) Fern. var. *nuttallii* (Small) Fern.] ***Paronychia fastigiata* (Raf.) Fernald var. *nuttallii* (Small) Fernald**

[*Paronychia fastigiata* (Raf.) Fern. var. *paleacea* Fern.]

Parthenium intergrifolium L.

Paspalum floridanum (Michx.) var. *glabratum* Engelm. ex Vasey

Paspalum laeve (Michx.) var. *pilosum* Scribn.

Paspalum setaceum Michx.

Phlox pilosa L.

Phyla lanceolata (Michx.) Greene

[*Physalis virginiana* P. Mill.] ***Physalis virginiana* Mill.**

Platanthera ciliaris (L.) Lindl.

Platanthera hookeri (Torr. ex Gray) Lindl.

[*Platanthera peramoena* (Gray) Gray]

Pluchea odorata (L.) Cass.

[Northern Witchgrass]

[Commons' Panic-Grass]

Wiry Witchgrass

[Long-Leaf Panic-Grass] **Long-Leaved Panic Grass**

[Long-Ligule Panic-Grass]

[Shining Panic-Grass]

[Fernald's Panic-Grass]

[Long-Haired Panic-Grass]

[Yadkin River Panic-Grass]

Whitlow Wort

[Chaffy Whitlow Wort]

American Fever-Few

Florida Beadgrass

Field Beadgrass

Slender Beadgrass

Downy Phlox

Lance Fog-Fruit

Virginia Ground-Cherry

Yellow Fringed Orchid

Hooker's Orchid

[Purple-Fringeless Orchid]

Shrubby Camphor-Weed

[<i>Poa languida</i> A. S. Hitchc.] <u>Poa languida A.Hitchc.</u>	Drooping Bluegrass
<i>Podostemum ceratophyllum</i> Michx.	Riverweed
[<i>Polygala polygama</i> Walt.] <u>Polygala polygama</u>	Racemed Milkwort
Walter	Eastern Jointweed
<i>Polygonella articulata</i> (L.) Meisn.	Stipuled Water-Smartweed
<i>Polygonum amphibium</i> L. var. <i>stipulaceum</i> (Coleman)	Bushy Knotweed
Fern.	Slender Pondweed
<i>Polygonum ramosissimum</i> Michx.	[Illinois Pondweed]
[<i>Potamogeton filiformis</i> Pers.] <u>Potamogeton filiformis</u>	Oakes' Pondweed
Pers. var. borealis (Raf.) St. John	Clasping-Stemmed Pondweed
[<i>Potamogeton illinoensis</i> Morong]	
[<i>Potamogeton oakesianus</i> J. W. Robbins]	
<u>Potamogeton oakesianus J.W.Robbins</u>	
<i>Potamogeton perfoliatus</i> L.	
[<i>Pycnanthemum pilosum</i> Nutt.] <u>Pycnanthemum</u>	
<u>verticillatum (Michx.) Pers. var. pilosum (Nutt.)</u>	
Cooperr.	Hairy Mountain-Mint
<u>Ranunculus aquatilis L. var. diffusus With.</u>	<u>White Water-Crowfoot</u>
<i>Ranunculus flammula</i> L.	Lesser Spearwort
[<i>Ranunculus trichophyllus</i> Chaix (Gleason, H. A. and	
A. Cronquist, Manual of Vascular Plants of	
Northeastern United States and Adjacent Canada,	
1991, Second Edition)]	[Northeastern White Water-Crowfoot]
[<i>Ratibida pinnata</i> (Vent.) Barnh.]	[Gray-Headed Prairie Coneflower]
[<i>Rhamnus alnifolia</i> L'Her] <u>Rhamnus alnifolia L'Hér</u>	Alder-Leaved Buckthorn
[<i>Rhynchospora globularis</i> (Chapman) Small]	
<u>Rhynchospora recognita (Gale) Kral</u>	Small Globe Beak-Rush
<i>Ribes lacustre</i> (Pers.) Poir.	Swamp Currant
<i>Rorippa palustris</i> (L.) Besser var. <i>palustris</i> (Gleason,	
H. A. and A Cronquist, Manual of Vascular Plants of	
Northeastern United States and Adjacent Canada,	
1991, Second Edition)	Yellow Cress
<i>Rosa virginiana</i> P. Mill.	Virginia Rose
[<i>Rubus cuneifolius</i> Pursh]	[Sand Blackberry]
<i>Rubus setosus</i> Bigelow	Small Bristleberry
[<i>Rumex hastatulus</i> Baldw. ex Ell.] <u>Rumex hastatulus</u>	
Baldwin ex Elliott	[Heart-Winged Sorrell] <u>Heart Sorrell</u>
<i>Salix petiolaris</i> Sm.	Meadow Willow
<i>Salvia reflexa</i> Hornem.	Lance-Leaved Sage
[<i>Samolus parviflorus</i> Raf. (Fernald, M. L., Gray's	
Manual of Botany, 1970, Eighth edition)] <u>Samolus</u>	
<u>parviflorus Raf.</u>	Pineland Pimpernel
<i>Saxifraga micranthidifolia</i> (Haw.) Steud.	Lettuce Saxifrage
<i>Scleria triglomerata</i> Michx.	Whip Nut-Rush
<i>Scutellaria saxatilis</i> Riddell	Rock Skullcap
[<i>Senecio plattensis</i> Nutt.]	[Prairie Ragwort]
<u>Senna marilandica (L.) Link</u>	<u>Wild Senna</u>

Sisyrinchium albidum Raf.
[*Solidago purshii* Porter]
Solidago rigida L.

Spiranthes tuberosa Raf.
[*Spirodela punctata* (Mey.) C. H. Thompson]
Stachys hyssopifolia Michx.
[*Stylosanthes biflora* (L.) BSP.] *Stylosanthes biflora*
(L.) Britton, Stearns & Poggenb.
Symphotrichum dumosum (L.) Nesom
Symphotrichum ericoides (L.) Nesom
Taxus canadensis Marsh.
[*Tradescantia ohiensis* Raf.]
Trillium flexipes Raf.

Triosteum angustifolium L.
Tripsacum dactyloides (L.) L.
[*Uvularia puberula* Michx.] *Uvularia pudica* Michx.
[*Veronica catenata* Pennell]
[*Viburnum trilobum* Marsh.] *Viburnum trilobum*
Marshall
[*Viola nephrophylla* Greene]

[*Viola renifolia* Gray] *Viola renifolia* A.Gray
[*Viola tripartita* Ell.] *Viola tripartita* Elliott
[*Vitis cinerea* var. *baileyana* Munson] *Vitis cinerea*
(Englem. in A.Gray) Englem. ex Millardet var.
baileyana (Munson) Comeaux
[*Wolffia borealis* (Engelm.) Landolt (Morris
Arboretum, 1992, Atlas of the Flora of Pennsylvania)]
Wolffia borealis (Engelm.) Landolt
[*Zanichellia palustris* L.]

[Blue-Eyed Grass] **Blue-Eyed-Grass**
[Pursh's Goldenrod]
Hard-Leaved Goldenrod
[Little Ladies'-Tresses] **Slender Ladies'-**
Tresses
[Eastern Water-Flaxseed]
Hyssop Hedge-Nettle

Pencil-Flower
Bushy Aster
White Heath Aster
American Yew
[Ohio Spiderwort]
Declined Trillium
[Yellow-Leaved Tinker's-Weed] **Horse**
Gentian
[Eastern Gamma-Grass] **Eastern Gammagrass**
Mountain Bellwort
[Pennell's Speedwell]

[Highbush Cranberry] **Highbush-Cranberry**
[Northern Bog Violet]
[Kidney-Leaved White Violet] **Kidney-Leaved**
Violet
Three-parted Violet

Possum-Grape

[Dotted Water-Meal] **Dotted Watermeal**
[Horned Pondweed]



November 6, 2017

David Sumner
Executive Director
Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17120

Re: Proposed Rulemaking: 17 Pa. Code Chapter 45, Conservation of Pennsylvania Native Wild Plants

Dear Mr. Sumner:

Pursuant to Section 5(a) of the Regulatory Review Act, please find enclosed copy of the proposed rulemaking amending 17 Pa. Code Chapter 45.

Purposes of Rulemaking

This rulemaking proposes to amend 17 Pa. Code Chapter 45 by doing the following: 1) updating the classification lists of native wild plants; 2) updating the scientific and common names of certain native wild plants; and 3) updating the reference source that the DCNR uses for the names of native wild plants.

Regarding updates to the classification lists of native wild plants, this rulemaking proposes to amend the following classification lists: Pennsylvania Extirpated (§ 45.11); Pennsylvania Endangered (§ 45.12); Pennsylvania Threatened (§ 45.13); Pennsylvania Rare (§ 45.14); and Tentatively Undetermined (§ 45.21).

This rulemaking proposes to amend the classification lists in the following ways: 1) adding plants that are currently unclassified, to a classification list; 2) reclassifying plants already on a classification list, to a new classification; and 3) removing plants from the classification lists altogether (declassifying them).

The Process of Classifying Native Wild Plants in Pennsylvania

Native wild plant species are those plant species that existed in Pennsylvania prior to European settlement. There are approximately 2,800 native wild plant species that currently exist or formerly existed in Pennsylvania. The DCNR classifies approximately one-fifth of these species, because they are a conservation concern; the other four-fifths are considered secure and thus not classified.

The DCNR begins the process of classifying native wild plants by collecting and analyzing data on native wild plant species within the Commonwealth. The DCNR uses the following data to



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make its classification decisions: numbers of populations known in Pennsylvania, number of individuals within populations, the plant's range (amount of ground that it covers), threats such

as pests and invasive species and habitat loss, decrease or increase in population numbers, and taxonomic information (note, this list is not exhaustive). The DCNR analyzes this data to determine the population, distribution, habitat needs, limiting factors and other biological and ecological information about each plant species.

An important piece of data that the DCNR uses to make classification decisions are referred to as "state ranks." In Pennsylvania, each plant species receives a state rank from the Pennsylvania Natural Heritage Program (PNHP). The PNHP assigns these ranks based on a methodology created by Nature Serve, an international network of natural heritage programs. The purpose of Nature Serve's methodology is to bring consistency to the biodiversity conservation efforts of individuals and organizations throughout the Western Hemisphere. This methodology is used across North, Central and South America. By using this standard tool, the DCNR ensures its evaluation methods are, at a minimum, equivalent to that of other states and countries in the Western Hemisphere and that its classification decisions are based on sound science.

Throughout this process the DCNR also receives data, information, and recommendations from the Pennsylvania Biological Survey's Vascular Plant Technical Committee (VPTC). The VPTC is composed of professional botanists working throughout the Commonwealth in academic, consulting, governmental, and conservation organizations. Each year, the VPTC makes classification recommendations for native wild plants, based on the research and expertise of its professional botanists.

The DCNR assimilates and reviews all data and recommendations it collects and receives, and determines the appropriate classifications for each native wild plant species, pursuant to the definitions in 17 Pa Code § 45.

Native Wild Plant Classifications

How plants are classified "determine[s] [the] management measures necessary for their continued ability to sustain themselves successfully" (32 P.S. § 5307 (a)). Native wild plant species that are at risk of extinction within the Commonwealth, need greater protection than those less susceptible to such risk. Chapter 45 designates the level of risk facing Pennsylvania's native wild plant species by classifying them as follows:

Pennsylvania Extirpated (§ 45.11)—A classification of plant species believed to be extinct within the Commonwealth. If a plant species classified as Pennsylvania Extirpated is later found to exist, within the Commonwealth, it will automatically be considered classified as Pennsylvania Endangered.

Pennsylvania Endangered (§ 45.12)—A classification of plant species that are in danger of extinction throughout most or all of their natural range within the Commonwealth, if critical habitat is not maintained or if the species is greatly exploited by man. This classification also



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includes populations of plant species that have been classified as Pennsylvania Extirpated, but are subsequently found to exist in the Commonwealth.

Pennsylvania Threatened (§ 45.13)—A classification of plant species that may become endangered throughout most or all of their natural range within the Commonwealth, if critical habitat is not maintained to prevent their further decline, or if the species is greatly exploited by man.

Pennsylvania Rare (§ 45.14)—A classification of plant species that are uncommon within the Commonwealth because they have low population numbers, or are only found in restricted geographic areas.

Pennsylvania Vulnerable (§ 45.15)—A classification of plant species that are in danger of population decline within the Commonwealth because of their beauty, economic value, use as a cultivar or other factors which indicate that persons may seek to remove these species from their native habitats.

Special Concern Population (§ 45.20)—A classification of plant species that the Department has determined to be a unique occurrence deserving protection. Among the factors used to classify a plant species as a Special Concern Population are the existence of unusual geographic locations, unisexual populations or extraordinarily diverse plant populations.

Tentatively Undetermined (§ 45.21)—A classification of plant species that are in danger of population decline, but do not meet the criteria for any other classification due to taxonomic uncertainties, limited historical records or insufficient data.

Updating Species Nomenclature

This rulemaking updates the scientific and common names of certain native wild plant species, in order to conform to the Department's new taxonomic source material.

The nomenclature used to identify species taxonomy in Chapter 45, comes from John T. Kartesz's 1980 publication, *A Synonymized Checklist of the Vascular Flora of the United States, Canada and Greenland, Volume 2: The Biota of North America*. The DCNR, however, now uses *The Plants of Pennsylvania Second Edition* (2007) by Ann Fowler Rhoads and Timothy A. Block as a reference. The Department made this change to reflect the most up-to-date information on native wild plants in Pennsylvania thus necessitating an update to the scientific and common names in Chapter 45 to remain consistent with the new source material. Additionally, this rulemaking will correct minor grammatical errors and misspellings of species names.

Pennsylvania Natural Diversity Inventory (PNDI)

The proposed amendments in this rulemaking will be incorporated into the Pennsylvania Natural Diversity Inventory (PNDI).



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PNDI is a database that maintains the DCNR's list of native wild plant classifications, as well as native rare wildlife classifications from the Pennsylvania Game Commission (PGC), the

Pennsylvania Fish and Boat Commission (PFBC), and the U.S. Fish and Wildlife Service (USFWS). PNDI provides the most current, reliable, and objective scientific information about ecological resources in the Commonwealth and it is used to help inform environmental decisions in the Commonwealth. Most notably, the Department of Environmental Protection (DEP) uses PNDI to inform its environmental permitting decisions.

The overwhelming majority of PNDI users use PNDI as part of the process of obtaining a DEP permit. The DEP requires permit applicants to screen their land use projects through PNDI for potential impacts to threatened or endangered species, in order to receive a DEP permit; threatened and endangered plant species are thereby protected by the DEP's permitting process.

Although this rulemaking will result in updates to the plant data in PNDI, it will not affect the DEP's permitting process. The process of obtaining a DEP permit is beyond the scope of this rulemaking; instead, PNDI's connection to this rulemaking is limited to its use of the plant data that will result from the amendments proposed by this rulemaking. **No person, business, small business, or organization will be required to invest in any additional administrative procedures as a direct result of this rulemaking.**

Finally, because this rulemaking will remove more species from classifications than it adds, there may be fewer classified plant species for prospective DEP permit applicants to account for when applying to obtain a DEP permit. Depending on the project type, location and classified plant species in question, prospective DEP permit applicants may see no change in the amount of mitigation required to address impacts to threatened and endangered species and fulfil permit requirements.

Any questions concerning the proposed regulation should be directed to Rebecca Bowen, Ecological Services, at (717) 787-3444 or rebbowen@pa.gov.

Sincerely,

A handwritten signature in black ink that reads 'Katie Woodbury'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Katie Woodbury
Executive Policy Specialist

**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO THE
REGULATORY REVIEW ACT**

I.D. NUMBER: 7B-8
SUBJECT: CONSERVATION OF PENNSYLVANIA'S NATIVE WILD PLANTS
AGENCY: Department of Conservation & Natural Resources

TYPE OF REGULATION

- Proposed Regulation
- Final Regulation
- Final Regulation with Notice of Proposed Rulemaking Omitted
- 120-day Emergency Certification of the Attorney General
- 120-day Emergency Certification of the Governor
- Delivery of Tolled Regulation
 - a. With Revisions
 - b. Without Revisions

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FILING OF REGULATION

<u>DATE</u>	<u>SIGNATURE</u>	<u>DESIGNATION</u>
		<i>HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY</i>
11/16/17	<u>Shelly Warner</u>	MAJORITY CHAIR <u>Rep. John Maher</u>
	<u>Will Azz</u>	MINORITY CHAIR <u>Rep. Mike Carroll</u>
		<i>SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY</i>
11/6	<u>Mark Groat</u>	MAJORITY CHAIR <u>Sen. Gene Yaw</u>
11/6	<u>Carly Kump</u>	MINORITY CHAIR <u>Sen. John Yudichak</u>
11/6/17	<u>K Cooper</u>	<i>INDEPENDENT REGULATORY REVIEW COMMISSION</i>
		<i>ATTORNEY GENERAL (for Final Omitted only)</i>
11/6/17	<u>Courtenay Maut</u>	<i>LEGISLATIVE REFERENCE BUREAU (for Proposed only)</i>