Appendix E. Ensuring Full Access to Federal Conservation Practice Data

It should be emphasized that the primary purpose of gaining complete access to Federal, State, and private agricultural conservation implementation data is to give the six watershed states a greater capacity for analysis and understanding of agricultural conservation practice implementation across the landscape, to support the adaptive management and targeting of conservation programs, to fully credit producers for their implemented conservation practices, and to promote success in attaining water-quality goals.

1619 Conservation Cooperator Agreements

The conservation assistance that is provided to farmers by the USDA is authorized under Section 1619 of the 2008 Farm Bill which states that, "USDA, or any contractor or cooperator of USDA, shall not disclose information provided by an agricultural producer or owner of agricultural land concerning the agricultural operation, farming or conservation practices, or the land itself, in order to participate in the programs of the Department . . ," except to agencies and individuals that have been established as USDA 1619 Conservation Cooperators (see Appendix B in Hively et al. 2013). This means that information that is used by a farmer to enroll in Federal agricultural programs is defined as confidential between the farmer and the Federal Government.

Organizations can be established as 1619 Conservation Cooperators if they agree to maintain data confidentiality and if their use of the data provides technical or financial assistance to USDA conservation programs. Signing a 1619 Conservation Cooperator Agreement provides the cooperator with confidential access to the USDA's datasets of conservation practice information. The data can be released to the public if they are aggregated so that farmer privacy is protected, as discussed below. These 1619 aggregation requirements are regularly followed by USDA agencies such as the National Agricultural Statistics Service when they are publishing county statistics. Farmers can also release their site-specific data on an individual basis.

The 1619 Conservation Cooperator Agreements can be authorized by State and regional officials of the NRCS or FSA. Ultimately, responsibility for enforcing Section 1619 of the 2008 Farm Bill lies with the FSA, and at the national level the FSA Privacy Officer (John

Table E-1. Status of 1619 Conservation Cooperator Agreements for each Chesapeake Bay state. These agreements facilitate access to USDA agricultural conservation data on a privacy protected basis. Source: Hively et al 2013

Jurisdiction	Agency	Purpose	Limits	Data covered	Start date	End date
Maryland	MDA	Assist NRCS in the delivery of conservation-related services.	Provide conservation-related services; monitor, assess, evaluate conservation benefits.	Not limited; lists specific data that may be viewed.	10/27/2009	None
New York	USC	Assist NRCS in the delivery of conservation-related services.	Provide conservation related services.	Not limited; lists specific data that may be viewed.	3/3/2011	None
Virginia	DCR	Provide technical assistance for USDA conservation programs.	Lists authorized activities including "compliance and status reviews."	Not limited; lists specific data that may be viewed.	12/4/2009	None
West Virginia	DA	Assist NRCS in the delivery of conservation-related services.	Provide conservation-related services.	Not limited; lists specific data that may be viewed.	4/7/2012	None
West Virginia	CA	Collect data to document and verify practices.	WV animal operations in the Potomac Basin.	Animal waste management and mortality disposal systems.	2/21/2012	3/1/2013
Federal	USGS	Provide technical assistance for a USDA program.	Monitoring, assessment, and evaluation; impact of farming practices on water-quality in the Chesapeake Bay watershed.	CRP and CREP, field boundaries, for States in Chesapeake Bay.	8/2/2010	9/30/2015
Federal	USGS	Provide technical assistance for a USDA program.	Monitoring, assessment, and evaluation; impact of farming practices on water-quality in the Chesapeake Bay watershed.	Farm Bill programs.	11/20/2010	9/30/2015

Underwood) has authority to review and approve 1619 Conservation Cooperator Agreements for both the FSA and NRCS and to sign for the FSA. Because the NRCS collaborates closely

with is sister agency in delivering conservation services, and NRCS planners have access to the FSA Common Land Unit field boundary dataset, the NRCS agreements tend to specify that they apply to both NRCS and FSA conservation information. Therefore, state jurisdictional agencies do not necessarily have to sign agreements with the FSA to gain access to FSA-managed conservation datasets, which include geospatial Common Land Unit (CLU) field boundaries as well as Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP) practices.

The agreements have start and end dates in most cases. The presence of an end date depends on the preference of the USDA signing official. Agreements may be amended by mutual agreement of all parties with signatory authority.

Chesapeake Bay States and Conservation Cooperator Agreements

Four watershed states—Maryland, New York, Virginia, and West Virginia—currently have established USDA 1619 Conservation Cooperator Agreements between the NRCS and one or more of their state conservation agencies. The remaining two states—Delaware and Pennsylvania—have not yet established conservation cooperator status for any of their state conservation agencies. The agreements state that "those individuals or organizations (governmental or nongovernmental) that assist the NRCS with providing conservation related services are known as NRCS Conservation Cooperators."

The following state agencies have established 1619 Conservation Cooperator Agreements with the USDA (Table 6) for the purpose of providing privacy-protected access to USDA conservation data:

- Maryland: Maryland Department of Agriculture (MDA)
- New York: Upper Susquehanna Coalition (USC)
- Virginia: Virginia Department of Conservation and Recreation (VA DCR)
- West Virginia: West Virginia Department of Agriculture (WVDA)
- West Virginia: West Virginia Conservation Agency (WVCA)

In addition, USGS has signed 1619 Conservation Cooperator Agreements with both NRCS and FSA.

Each of the six states has identified its state agency assigned with responsibility for submitting aggregated agricultural conservation practice data to the Bay Program's Annual Progress Review, through their respective state's NEIEN data transfer node. Those state agencies with responsibility for providing conservation services (e.g., technical assistance, cost share program administration) are also identified in Table E-2. These state agencies work in partnership with additional jurisdictional, regional, local, and Federal agencies and non-governmental organizations to collect and compile the necessary conservation practice

implementation data, often funded in the process by the EPA's Chesapeake Bay Regulatory and Accountability Program Grants to the jurisdictions.

Delaware

Delaware does not currently have a 1619 data sharing agreement. The Committee recommends establishing an agreement between USDA and the Delaware Department of Natural Resources and Environmental Control, the agency with responsibility for integrating conservation datasets and making the data submission to the Annual Progress Review through Delaware's state NEIEN node, as well as the Delaware Department of Agriculture and the Delaware Forest Service. The Committee recommends adopting the broadest and most up to date language for each key factor of the 1619 agreement—purpose, limits, aggregation, privacy, and access—as described within Hively et al. 2013.

Maryland

In Maryland, the Department of Agriculture (MDA) has been established as a 1619 Conservation Cooperator with the NRCS. Supported by this jurisdictional 1619 data-sharing agreement, Maryland has developed an integrated "Conservation Tracker" database that is used within each Conservation District office to document Federal, State, and nongovernmental organizations' financial assistance and conservation practices installed without Federal or State financial assistance. This database has made it comparatively easy for Maryland to eliminate double counting and accurately report conservation practice implementation. MDA compiles and aggregates the Conservation Tracker dataset, joins the resulting data with additional jurisdictional databases documenting cover crops, manure transport, and nutrient management;

Table E-2. State jurisdictional agencies that have been approved by the USDA for participation in 1619 data-sharing agreements to support the objectives of the NRCS Chesapeake Bay Watershed Initiative and increase the capacity for consistent, integrated analysis, and reporting of conservation practice implementation data for the Chesapeake Bay watershed. Source: Hively et al 2013

Jurisdiction	Agency	Role	1619 agreement in place?
Delaware	DE-DNREC	Responsible for NEIEN submission.	No
	DE-DA	Provides conservation services.	No
	DE-FS	Provides conservation services.	No
Maryland	MDA	Provides conservation services.	Yes
	MDE	Responsible for NEIEN submission.	No
New York	USC	Provides conservation services.*	Yes
	NY-DEC	Responsible for 2013 NEIEN submission	No
Pennsylvania	PA-DEP	Responsible for NEIEN submission.**	No
	PA-DA	Provides conservation services.	No
Virginia	VA-DCR	Provides conservation services.	Yes
	VA-DEQ	Responsible for NEIEN submission.	No
West Virginia	WV-DEP	Responsible for NEIEN submission	No
	WV-DA	Provides conservation services	Yes
	WV-CA	Provides conservation services	Yes

and then transmits the aggregated data to the Maryland Department of the Environment (MDE), which is the lead Maryland agency for operation and maintenance of Maryland's State NEIEN node.

The Committee recommends that Maryland continue to operate under its existing Maryland Department of Agriculture 1619 agreement, and consider, during any future amendments to the agreement, adopting broader language regarding access, specifically including the phrase "*data can be obtained from USDA, directly from farmers, or from Federal established 1619 Conservation Cooperators.*" The Committee recommends that Maryland consider establishing 1619 status for specific individuals within the MDE, the agency responsible for the NEIEN data submission. Maryland would also benefit by investing the time to compare USGS-sourced data with jurisdiction-sourced data from Maryland Department of Agriculture to check for accuracy and identify any useful information that one or the other of the datasets might be missing.

New York

In New York, the Upper Susquehanna Coalition (USC) has been established as a 1619 Conservation Cooperator with the NRCS. The USC is made up of various collaborators within the Soil and Water Conservation Districts serving the area of New York in the Chesapeake Bay watershed. The USC currently provides an umbrella organization whereby pertinent personnel from the multiple organizations that collaborate with New York Soil Conservation Districts can gain authorized access to USDA privacy protected conservation data. Because the portion of New York that falls within the Chesapeake Bay watershed is relatively small (comprising 16 Soil and Water Conservation Districts), the USC has established a method of meeting with each of its member Soil and Water Conservation Districts to obtain annual conservation implementation data. During this process, the USC also collects information on practice implementation from partners such as the NRCS and Cornell Cooperative Extension.

The USC's Soil and Water Conservation Districts organize conservation data within the New York's Agricultural Environmental Management (NYAEM) framework that they use to track both State and federally financed conservation practices. The NYAEM is part of the overall Agricultural Environmental Management umbrella, which, by State law, partners the New York State (NYS) Department of Agriculture and Markets, the NYS Soil and Water Conservation Committee, and the Soil and Water Conservation Districts in a multifaceted program for conservation on farms. Within this framework the USC has developed an online tool to record and report State and federally financed conservation practices. Although the NYAEM online tool was not used for progress reporting in 2012, it has the potential to make it comparatively easy for the USC to eliminate double counting and accurately and consistently report conservation practice implementation for the Bay Program's Annual Progress Review.

In 2013, responsibility for operation and maintenance of New York's State NEIEN node (in terms of submission of annual Chesapeake Bay watershed agricultural conservation practice data) was transferred from the USC to the NY State Department of Environmental Conservation (NY DEC). The Committee recommends that New York Department of Environmental Conservation consider establishing a 1619 data sharing agreement modeled after the existing Upper Susquehanna Coalition agreement, or become a signatory to the Upper Susquehanna Coalition agreement. Any new agreements would benefit from including more precise

language regarding data privacy (non-applicability of sunshine law) and data access (including the specific language "*data can be obtained from USDA, directly from farmers, or from Federal established 1619 Conservation Cooperators*") (see Hively et al. 2013).

Pennsylvania

Pennsylvania does not currently have a 1619 Conservation Cooperator agreement in place. In Pennsylvania, the Department of Environmental Protection has responsibility for reporting practices for the Bay Program's Annual Progress Review, including data submission through Pennsylvania's State NEIEN node. PA DEP has is the lead state agency provide conservation services. Because this agency does not have a 1619 agreement in place, in 2012 and again in 2013, Pennsylvania relied upon the USGS to provide an aggregated dataset of USDA conservation practices, which was then integrated with the jurisdictional spreadsheet of State-funded practices. The Committee recommends establishing an agreement between USDA and the Pennsylvania Department of Environmental Protection, adopting the broadest and most up to date language for each key factor of the 1619 agreement: purpose, limits, aggregation, privacy, and access.

Because Pennsylvania Department of Environmental Protection delivers conservation services and is also a regulatory agency, 1619 access should be limited to those individuals directly involved in preparing data for the Annual Progress Review. Soil Conservation Districts should work to establish an integrated tracking system for both Federal and State-sponsored conservation practices that operates under the cooperative data sharing agreements that have been signed between the NRCS and each individual Soil Conservation District. That system should be used to provide consistent aggregated data reports to the Pennsylvania Department of Environmental Protection, as well as to strengthen their infrastructure for providing conservation planning and implementation. The Committee also recommends that the Pennsylvania Department of Agriculture, which provides additional conservation services, also establish a 1619 agreement with USDA.

Virginia

In Virginia, the Department of Conservation and Recreation has been established as a1619 Conservation Cooperator with the NRCS. However, until 2013, VA DCR had full responsibility for reporting practices, including data submission to the Bay Program's Annual Progress Review—that responsibility has since transitioned over to the Virginia Department of Environmental Quality. The Virginia 1619 agreement limits data access to the specific individuals within VA DCR that is responsible for the Annual Progress Review. Because neither the Department of Conservation nor the Department of Environmental Quality has an integrated Federal-State data tracking system, this person obtains USDA conservation practice data by requesting them from the Virginia State NRCS office, where the data are compiled by querying the NRCS Integrated Data for Enterprise Analysis (IDEA) database. This data- set is then integrated with the jurisdictional database of State-funded practices and the data are aggregated prior to submission to the Annual Progress Review by using node client software for reporting extensible markup language files.

The Committee recommends that Virginia continue to operate under its existing Virginia Department of Conservation and Recreation 1619 agreement, but plan to amend the agreement to

adopt broader language regarding purpose and limits (explicitly including "*monitoring, assessing, or evaluating of conservation benefits from USDA conservation programs")* and more precise language regarding privacy (non-applicability of sunshine law) and data access (include "*data can be obtained from USDA, directly from farmers, or from Federal established 1619 Conservation Cooperators*"). It may also be necessary to broaden or update the list of individuals within the Virginia Department of Conservation and Recreation who are permitted access to the data.

The Committee recommends that Virginia Department of Environmental Quality establish a 1619 agreement, particularly since the 2012 point person for conservation data handling has moved from the Virginia Department of Conservation and Recreation to the Virginia Department of Environmental Quality. Since Virginia Department of Environmental Quality is a regulatory agency, any agreement should limit access to those individuals that are directly involved in conservation data reporting.

West Virginia

In West Virginia, the Department of Agriculture has been established as a 1619 Conservation Cooperator with the NRCS but cannot share unaggregated conservation practice information with the West Virginia Department of Environmental Protection, which is the agency responsible for submitting data through West Virginia's State NEIEN node. The West Virginia Conservation Agency was also established as a cooperator with the NRCS under a memorandum of understanding covering only animal waste disposal and poultry mortality disposal in the Potomac Basin. Although West Virginia is a 1619 Conservation Cooperator (via the West Virginia Department of Agriculture and West Virginia Conservation Agency), NRCS staffing and priorities led the Department of Environmental Quality to rely upon the USGS to provide aggregated datasets of 2012 and 2013 USDA conservation practices, which was then integrated with the jurisdictional database of State-funded practices and submitted through West Virginia's State NEIEN node.

The Committee recommends that West Virginia continue to operate under its existing WVDA 1619 agreement, but plan future amendments to the agreement to adopt broader language regarding limits (including the specific language "*monitoring, assessing, or evaluating of conservation benefits"*) and access (include "*data can be obtained from USDA, directly from farmers, or from Federal established 1619 Conservation Cooperators*") (see Hively et al. 2013).

The Committee also recommends that the West Virginia Conservation Agency and the West Virginia Department of Environmental Protection establish 1619 agreements with USDA to promote consistent access to conservation data. Because West Virginia Department of Environmental Protection is a regulatory agency, any agreement should limit access to those individuals that are directly involved in conservation data reporting.

All Chesapeake Bay Watershed States

Interestingly, the two jurisdictions with the most comprehensive 1619 agreements—Maryland and New York—have established jurisdictional integrated databases of federal and state-sponsored agricultural conservation practices. This allows these two states to directly track cost-shared conservation practices regardless of the source of financial assistance (State, Federal, or private) and address the removal of double counting in a relatively

straightforward manner. It also has greatly simplified their annual reporting to the Bay Program's Annual Progress Review. These results imply that Virginia, for example, might benefit from establishing a combined jurisdictional database of Federal and State practices. Currently, Virginia has a labor-intensive data submission process, owing to the State's use of record-by-record comparison for removal of double-counted practices, as described below. The other states—Delaware, Pennsylvania, and West Virginia—would likely great benefit from developing similar systems for integrating Federal and State-sponsored agricultural conservation practices.

Establishing New 1619 Conservation Cooperator Agreements

The following jurisdictional agencies with responsibility for conservation data reporting *do not* currently have 1619 Conservation Cooperator Agreements in place and must rely upon obtaining aggregated conservation data from their collaborators:

- *Delaware Department of Natural Resources and Environmental Control*—Receives aggregated conservation practice data from the conservation districts and the USGS, and submits the data to the Bay Program's Annual Progress Review through the Delaware NEIEN node.

- *Maryland Department of the Environment.*—Receives aggregated conservation practice data from Maryland Department of Agriculture and submits the data to the Bay Program's Annual Progress Review through the Maryland State NEIEN node.

- *New York Department of Environmental Conservation*—Assumed responsibility for submission of data to the New York NEIEN node in 2013, working in partnership with the Upper Susquehanna Coalition.

- *Pennsylvania Department of Environmental Protection*—Receives aggregated conservation data from conservation program leads, conservation districts, and the USGS, and submits the data for the Bay Program's Annual Progress Review through Pennsylvania's State NEIEN node. The Department of Environmental Protection is the Pennsylvania State agency with direct responsibilities for planning, funding, delivery, reporting, and submission of conservation-practice data. In addition to providing conservation services, it is also a regulatory agency.

- *Virginia Department of Environmental Quality*—Assumed responsibility for the Annual Progress Review from the VA DCR in 2013, and a number of conservation programs were also transitioned from the VA DCR to VA DEQ following recently enacted legislation.

- *West Virginia Department of Environmental Protection*—Receives aggregated conservation data from the West Virginia Department of Agriculture, the West Virginia Conservation Agency, and the USGS, and submits the data for the Bay Program's Annual Progress Review through West Virginia's State NEIEN node.

Several additional state agencies that are directly involved in conservation planning, funding, delivery, and reporting of conservation-practice data also do not have 1619 data-sharing agreements in place:

- *Delaware Department of Agriculture*—Currently provides aggregated jurisdictional records to the DE-DNREC for use in reporting to the Bay Program's Annual Progress Review.

- *Delaware Forest Service*—Promotes forestry conservation practices with USDA financial assistance.

- *Pennsylvania Department of Agriculture*—Promotes conservation practices in collaboration with the USDA and PA DEP.

- *West Virginia Conservation Agency*—Has established a 1619 agreement covering animal waste and mortality data only. The agency currently provides aggregated conservation data to the WVDEP.

In support of the NRCS Chesapeake Bay Watershed Initiative (CBWI), the NRCS has encouraged jurisdictional conservation agencies that do not have 1619 agreements in place to request to establish one (Hively et al. 2013). Each of the jurisdictional agencies listed in Table 7 has been vetted and approved by the FSA Privacy Officer, in collaboration with the NRCS regional conservationists, as eligible for USDA 1619 Conservation Cooperator status because the agency supplies conservation technical assistance to NRCS programs under the definitions established by the NRCS Chesapeake Bay Watershed Initiative (Hively et al. 2013).

The two lists above do contain state regulatory agencies including the DE DNREC, MDE, NY DEC, PA DEP, VA DEQ, and WV DEP, although most of these agencies also have direct responsibility for planning, funding, and implementation of conservation practices and provide conservation technical assistance to farmers. Several of the NRCS State Conservationists in the Chesapeake Bay have stated that 1619 agreements will not be provided to regulatory agencies. However, it is possible to word 1619 agreements to specifically limit access to the few key individuals within those agencies who are responsible for conservation data reporting (see suggested language in Appendix B:10 in Hively et al. 2013). For example, at the USGS only employees who have signed an internal 1619 data-handling agreement with specific data-use objectives (see Appendix B:8 in Hively et al. 2013) are allowed access to the protected conservation dataset. A similar strategy could be used by the state agencies (e.g., Virginia Department of Conservation and Recreation) to maintain a firewall between regulation and conservation implementation/reporting while still allowing critical staff access to the USDA dataset to assist in jurisdictional conservation reporting and management.

The existing Chesapeake Bay watershed jurisdictional 1619 agreements (see Appendix B:1-5 in Hively et al. 2013) are fairly consistent, but they differ in the wording of several key factors. As a result, there are some important differences in the level of data access provided by the agreements, with some jurisdictions including a broader array of programs and practices than others (Table E-1). The broadest language for each of the key factors, which will ensure full access to all USDA conservation practice data, is provided on page 6 in Hively et al. 2013. It should be mentioned that, despite differences in language, the effective interpretation of the

agreements by the NRCS has been fairly broad and uniform, and was sufficient to provide full access to USDA data by the signatory jurisdictions in 2012 and 2013.

Accounting for and Crediting Conservation Technical Assistance Data

Conservation technical assistance (CTA) data can be accessed by the jurisdictions with 1619 agreements in place, but the jurisdictions have not been submitting the data for nutrient and sediment pollutant load reduction credits due to concerns about possible double counting (e.g., differentiating between NRCS and state funded CTA) and lack of verification.

Jurisdictional Access to Chesapeake Bay CEAP Data

The Bay Program partners are working with USDA to ensure the jurisdictions with 1619 agreements in place can get access to the appropriately geographically summarized CEAP data use for in assessing whether their BMP tracking, verification and reporting programs are effectively capturing non cost-shared agricultural conservation practices. Access to the CEAP data can also help the jurisdictions better target implementation of the conservation delivery programs and services.

Recommendations for Ensuring Full Access to Federal Conservation Practice Data

The bottom line objective remains the same: ensuring that all six states have full access to all federally cost shared conservation practice data to be used to eliminate any double counting, to support effective conservation program implementation, and fully credit their producers for their nutrient and sediment load reduction implementation actions. To ensure that all six Chesapeake Bay watershed jurisdictions obtain full and complete access to all Federal cost-shared agricultural conservation practice data, the BMP Verification Committee recommends that the six Chesapeake Bay watershed states:

1) Adopt the broadest, most consistent language in the existing Maryland, New York, Virginia, West Virginia, and USGS 1619 agreements as described on page 6 in Hively et al. 2013;

2) Institute 1619 data sharing agreements in Delaware and Pennsylvania and for all jurisdictional agencies in Maryland, New York, Virginia, West Virginia listed in Table E-2 which have direct responsibilities for planning, funding, delivery, reporting, and/or submission of agricultural conservation practice data; and

3) Establish an annual data handling protocol that will ensure routine, thorough, and consistent data access for all USDA Farm Bill agricultural conservation programs. This uniform data access can be tailored to formats that integrate effectively within each state's respective conservation tracking and reporting system.

When considering signatories for 1619 agreements, it's important to consider all state agencies that have responsibility for data compilation, data submission to NEIEN network node, and involvement in funding and directing staff to deliver technical and financial assistance for implementing agricultural conservation programs on the ground. The BMP Verification Committee recommends that each of the listed jurisdictional agencies in Table E-2, particularly those directly involved in the NEIEN submissions, sign their states' 1619 agreements to gain

access to privacy protected USDA conservation data records. This would greatly increase the capacity for integrated analysis, preventing double counting, and reporting of conservation implementation. Furthermore, it would support the use of a single data request to obtain USDA data for all six states, which would promote equity in conservation reporting across the Chesapeake Bay watershed.

The BMP Verification Committee recommends adopting consistent 1619 language for each of the key elements within the Chesapeake Bay Conservation Cooperator agreements as identified by USGS—purpose, limits, aggregation, data, and access (see page 6 in Hively et al. 2013). Taking this approach would greatly assist the jurisdictions in meeting the objective of increasing capacity for analysis and understanding of implementation in support of adaptive management of conservation programs, as well as establishing consistency and accuracy in reporting of USDA conservation data among the Chesapeake Bay watershed jurisdictions.

Further, the BMP Verification Committee recommends that the six states, USDA, and other appropriate partners sign a cover page referencing the attached six state-specific 1619 agreements collectively ensure all six states have full access to federal cost shared practice data. This recommendation replaces the original proposal for a single, integrated six-state 1619 agreement and acts to document to continued commitment by all the parties to ensure these separate agreements continue to support the collective partnership's commitment to ensuring full access to federal cost shared practices.

The USGS report by Hively et al. (2013) provides a draft 1619 agreement template that adopts suggested language for establishing a 1619 agreement between a Chesapeake Bay watershed jurisdictional agency and the USDA. The recommended language was reviewed and approved by the USDA FSA Privacy Officer (see Appendix B in Hively et al. 2013).