

1	A Change #	B Original Section Location	C Original Text	D Type of Change	E New Text	F Reason for Change
2	1	Title Page	"Software and Hardware Development Plan"	Modification	"Design as Delivered Draft"	Discussions concerning the need for an updated design document.
3	2	I.A Purpose	"The purpose of the EDMS is to be the home of emissions inventories that are the basis for emissions control and management programs to be adopted by states and tribes through their regional haze implementation plans. The EDMS will be able to provide output files for emissions analyses and air quality modeling applications. "	Modification	"The purpose of the EDMS is to be the home of emissions inventories that are the basis for emissions control and management programs to be adopted by states and tribes through their regional haze implementation plans. The EDMS provides output files for emissions analyses and air quality modeling applications. "	Verb tense
4	3	I.A Purpose	"The EDMS is also to receive, store, process, and display combinations of the emissions and activity data, as well as emissions calculation methods used to estimate emissions inventories. The display capabilities will include GIS functionality; tabular, and flat file data formats; graphs and charts; and the ability to capture these displays in user-defined report formats. No currently existing system meets this need. "	Modification/Addition	"The EDMS is also able to receive, store, process, and display combinations of the emissions and activity data, as well as emissions calculation methods used to estimate emissions inventories. The display capabilities include GIS functionality; tabular, and flat file data formats; graphs and charts; and the ability to capture these displays in user-defined report formats. No currently existing system meets this need. The purpose of this document is to provide an update of the EDMS Hardware Software Development Plan that accounts for the variances between the design of the EDMS as specified in that plan and the delivered system."	Verb tense Restatement of purpose of document. Note that the statement of "No currently existing system meets this need" refers to the development of the EDMS.
5	4	I.B User System Requirements	"Users must have access to a workstation with ability to connect to the Internet. Owing to the GIS-based interface required for the application, a broadband connection approximately two Megabytes per second (2 Mbps) or greater is recommended to use the EDMS. The workstation must be equipped with an Internet Browser program, such as Internet Explorer or Netscape. We are unaware of any problems associated with the use of the EDMS through a standard, modern browser."	Modification	"Users must have access to a workstation with ability to connect to the Internet. Owing to the GIS-based interface required for the application, a broadband connection approximately two Megabytes per second (2 Mbps) or greater is recommended to use the EDMS. The workstation must be equipped with Internet Explorer. Additionally, the GIS interface requires the use of the Adobe SVG viewer available without charge from the Adobe website. Other combinations of browsers and SVG viewers have not been tested."	User experience has shown that the new wording is more accurate.
6	5	II.A Introduction	"The extended data model will have additional fields to accommodate the EDMS-specific information. "	Modification	"The extended data model has additional fields to accommodate the EDMS-specific information. "	Verb tense
7	6	II.A Data Requirements Table II-1 Fire Row	"EDMS calculated from provided inputs"	Modification	"Data Providers; WRAP Contractors"	No longer relevant for system as delivered. WRAP Fire data has been developed by a contractor according to documents found at http://www.wrapair.org/forums/fejftasks/FEJFTask7.html . Fire data has been provided to EDMS in Point source format.
8	7	II.B.5 Fire	see document	Removal/Replacement	"The Fire sector harbors information on five fire types: wildfires, prescribed burning, wildland fire use, agricultural burning, and rangeland burning. Currently, Fire data is provided by WRAP contractors as a sub-type of Point Source format data. It is to be noted that the method of creation of Fire files using the Point Source format has led to very large submittals resulting in considerable space usage in processing the data. "	No longer relevant for system as delivered. WRAP Fire data has been developed by a contractor according to documents found at http://www.wrapair.org/forums/fejftasks/FEJFTask7.html . Fire data has been provided to EDMS in Point source format.
9	8	II.F QA	"For unsubmitted and/or missing mobile source emissions data for a given area, the EDMS DBA will estimate the inventories using available mobile emissions models and area-specific data or national average data. "	Modification	"For unsubmitted and/or missing mobile source emissions data for a given area, the EDMS Steering Committee will consider gap-filling with inventories developed using mobile emissions models and area-specific or national average data."	The WRAP EDMS DBA does not typically do modeling of emission inventories.
10	9	II.G Data Versions	"The EDMS database will be composed of a set of tables to store and manage the emissions information. Each set of tables house multiple versions of the emissions data according to the following scheme: "	Modification	"The EDMS database is composed of a set of tables to store and manage the emissions information. Each set of tables houses multiple versions of the emissions data according to the following scheme:"	Verb tense
11	10	II.G Data Versions	"A Version Content Report will be available in the Standard Reports section that identifies locked versions and their content."	Removal	N/A	Version content information is provided through inventory descriptions available through wrapdms.org .

1	A Change #	B Original Section Location	C Original Text	D Type of Change	E New Text	F Reason for Change
12	11	II.G Data Versions Version Audit Trail	"Each inventory table will include two columns that will identify the data source trail for any record. "	Modification	"Each inventory table includes two columns that will identify the data source trail for any record. "	Verb tense
13	12	II.G Data Versions Version Audit Trail	"Some records may be propagated through multiple inventories, therefore the application will trace the data through all inventories, essentially providing a history of the data record. "	Modification	"Some records may be propagated through multiple inventories, therefore the application can trace the data through all inventories, essentially providing a history of the data record. "	Verb tense
14	13	II.G Data Versions Version Audit Trail	"Additional information would be specific to the table reported upon."	Modification/Addition	"Additional information would be specific to the reported table. In some cases, it has been requested that the DBA directly process emission inventory data, usually in the case of large single regional files. These inventories will contain data source information and details about the inventories and their source can be found in the inventory description documents posted on the wrapeds.org web site."	Typographical error This statement notes that there has been a need or request to process some inventories through direct interaction with the database.
15	14	II.H Logical vs. Physical Organization	"The logical sectors in the EDMS are Point, Area, Fire, Windblown Dust, On-road Mobile, Non-road Mobile, Biogenic, and Windblown dust. However, because of the structural similarity at the annual/daily level of data required for Area, Fires, and Non-road Mobile, these records will be stored in the physical tables associated with Area_XX (see listing below). A field identifies the sector associated with the data record. Through the use of this field, the data can be separated and presented by sector, even though the different sectors physically reside in the same tables. A similar situation occurs with the Biogenic and Windblown Dust sectors. The Activity Detail tables will likewise house multiple sectors of data, distinguished by the parent tables and sectors. The physical storage of inventory data in the EDMS system will be primarily in the following sets of tables:"	Modification	"The logical sectors in the EDMS are Point, Area, Fire, Windblown Dust, On-road Mobile, Non-road Mobile, Biogenic, and Windblown dust. However, because of the structural similarity at the annual/daily level of data required for Area and Non-road Mobile, these records are stored in the physical tables associated with Area_XX (see listing below). A field identifies the sector associated with the data record. Through the use of this field, the data can be separated and presented by sector, even though the different sectors physically reside in the same tables. A similar situation occurs with the Biogenic and Windblown Dust sectors and the Point and Fire sectors. The Activity Detail tables likewise house multiple sectors of data, distinguished by the parent tables and sectors. The physical storage of inventory data in the EDMS system is primarily in the following sets of tables:"	Verb tense Note that Fire is no longer considered a subset of Area. WRAP Fire data has been developed by a contractor according to documents found at http://www.wrapair.org/forums/fejf/tasks/FEJFtask7.html . Fire data has been provided to EDMS in Point source format.
16	15	II.H Logical vs. Physical Organization	". Activity Detail (which will include tables for the Activity Detail data, Activity Type reference table, Activity Permit data (Phase II), Activity Geographical data, Activity Meteorological data, and Activity Fire Detail data); and"	Modification	". Activity Detail (which includes tables for the Activity Detail data, Activity Type reference table, Activity Permit data (Phase II), Activity Geographical data, Activity Meteorological data, and Activity Fire Detail data; however, note that this Fire detail data was applicable in the original implementation – currently, Fire Data is provided as a subset of Point Source data); and "	No longer relevant for system as delivered. WRAP Fire data has been developed by a contractor according to documents found at http://www.wrapair.org/forums/fejf/tasks/FEJFtask7.html . Fire data has been provided to EDMS in Point source format.
17	16	II.H Logical vs. Physical Organization	". Transmittal table (which will include the Transmittal information for the sets of tables above."	Modification	". Transmittal table (which includes the Transmittal information for the sets of tables above)."	Verb tense
18	17	II.H Logical vs. Physical Organization Inventory	"The Inventory tables are used for identifying a particular inventory, the year of the inventory, the type of inventory (Actual, Planning, Forecast, Sensitivity, e.g.), comments, status (locked/unlocked), and the parent inventory ID (if the inventory was developed from another inventory through versioning, growth, planning, etc.)."	Modification	"The Inventory tables are used for identifying a particular inventory, the year of the inventory, the type of inventory (Actual, Planning, Forecast, Sensitivity, e.g.), comments, status (locked/unlocked, private/public), and the parent inventory ID (if the inventory was developed from another inventory through versioning, growth, planning, etc.)."	Viewing of data is controlled by the Public/Private flag. Currently, only inventories marked public are available to all users. Data Administrators and Data Providers have access to inventories marked Private.
19	18	II.H Logical vs. Physical Organization Security	"The Security tables will manage information related to users and security roles. These tables will indicate the organization(s) to which the user belongs, the different types of user roles (Data Provider, Sector Administrator, Inventory Owner, Data Analyst are examples of user roles) and the sector the user will manage. Essentially, the relationship created between a user, the organization to which the user belongs, the user role, and the sector will determine the functionality and data available to user through the application."	Modification	"The Security tables manage information related to users and security roles. These tables indicate the organization(s) to which the user belongs and the different types of user roles (Data Provider, General User, and Data Analyst are examples of user roles)."	Verb tense Originally, the security was designed for a more complex implementation than what has been required in practice.

1	A Change #	B Original Section Location	C Original Text	D Type of Change	E New Text	F Reason for Change
20	19	II.H Logical vs. Physical Organization Transfer	"The Transfer tables will manage information about the data imported and exported to/from the system by data providers. The primary table is the transfer file table that will contain the file information, the submitter information, any additional notes that relate to the submission, and the inventory to which the submission should be applied."	Modification	"The Transfer tables manage information about the data imported and exported to/from the system by data providers. The primary table is the transfer file table that contains the file information, the submitter information, any additional notes that relate to the submission, and the inventory to which the submission should be applied. "	Verb tense
21	20	II.H Logical vs. Physical Organization Logging/Notes	"There Logging/Notes tables track application activity. The Log and Log Detail tables track application activity associated with inventory QA/QC procedures. The Notes table tracks comments associated at multiple levels of the application, from the transfer table and inventory level, to notes on individual tables or records. Using a single physical table to track notes from multiple logical sources increases efficiency. While this information will be stored in a single physical table, the presentation of the data will be logically separated by the EDMS application."	Modification	"The Logging/Notes tables track application activity. The Log and Log Detail tables track application activity associated with inventory QA/QC procedures. The Notes table tracks comments associated at multiple levels of the application, from the transfer table and inventory level, to notes on individual tables or records. Using a single physical table to track notes from multiple logical sources increases efficiency. While this information is stored in a single physical table, the presentation of the data is logically separated by the EDMS application."	Typographical error Verb tense
22	21	II.H Logical vs. Physical Organization Activity Detail	"In addition to the standard emission inventory tables, the EDMS system will include enhanced activity detail information. This section will be able to store information concerning the activity type, amount, units, geographic mapping information associated with the activity, specific fire data, meteorological data associated with the activity, and relevant permit information as available. The structure of these tables allows flexible tracking of types of activity data."	Modification	"In addition to the standard emission inventory tables, the EDMS system includes enhanced activity detail information. This section stores information concerning the activity type, amount, units, geographic mapping information associated with the activity, specific fire data (applicable in the original implementation – currently, Fire Data is provided as a subset of Point Source data), meteorological data associated with the activity, and relevant permit information as available. The structure of these tables allows flexible tracking of types of activity data. "	Verb tense No longer relevant for system as delivered. WRAP Fire data has been developed by a contractor according to documents found at http://www.wrapair.org/forums/fejftasks/FEJftask7.html . Fire data has been provided to EDMS in Point source format.
23	22	III Functional Requirements	"The EDMS will provide a means for data providers to submit their data; store the data for future uses such as modeling; provide an interface by which EDMS stakeholders and other interested parties can view the stored data; and prepare exports for subsequent analysis and modeling. The Architecture Diagram shown in Figure III-1 provides a visual depiction of the EDMS. "	Modification	"The EDMS application provides a means for data providers to submit their data; stores the data for future uses such as modeling; provides an interface by which EDMS stakeholders and other interested parties can view the stored data; and prepares exports for subsequent analysis and modeling. The Architecture Diagram shown in Figure III-1 provides a visual depiction of the EDMS. "	Verb tense/Wording
24	23	III Functional Requirements Staging Database	"Data in this set of tables is available for certain security levels, such as data providers, to view."	Removal	N/A	Viewing of data is controlled by the Public/Private flag. Currently, only inventories marked public are available to all users. Data Administrators and Data Providers have access to inventories marked Private.
25	24	III Functional Requirements Production Database	see document	Addition	"Security and snapshot view implementation are only for production. Viewing of data is controlled by the Public/Private flag. Currently, only inventories marked public are available to all users. Inventories marked Private are available to Data Administrators and Data Providers."	Viewing of data is controlled by the Public/Private flag. Currently, only inventories marked public are available to all users. Data Administrators and Data Providers have access to inventories marked Private.

1	A Change #	B Original Section Location	C Original Text	D Type of Change	E New Text	F Reason for Change
26	25	III Functional Requirements Rollbacks	"There are three functional point types in the system where the management of rollback or partial updates may become an issue. The first is in standard programming instances where a number of tables may need to be modified and a failure occurs at some point during the transaction. Data inconsistency will be prevented in these cases by standard programming approaches to the concept of transaction: work is not committed until the end of a transaction; the transaction may have multiple steps. If there is a failure point during this process, all steps associated with that transaction are rolled back. "	Modification	"There are three functional point types in the system where the management of rollback or partial updates may become an issue. The first is in standard programming instances where a number of tables may need to be modified and a failure occurs at some point during the transaction. Data inconsistency is prevented in these cases by standard programming approaches to the concept of transaction: work is not committed until the end of a transaction; the transaction may have multiple steps. If there is a failure point during this process, all steps associated with that transaction are rolled back. "	Verb tense
27	26	III.A Import	"EDMS will accept inventory data that is NIF 3.0 compliant in Access and ASCII format. This data is the same as the data traditionally submitted to the EPA for the NEI. This approach will permit economy in the generation of the data for data providers since it will only need to be generated once and submitted twice (to EPA and to the EDMS system). EDMS will accept EDMS-specific data (Activity Detail and Fire Detail data) in Access or ASCII fixed-width format. Due to timing issues between EDMS development and the finalization and expansion of the use of the EPA NEI XML 3.0 format beyond an initial pilot group, it is recommended that the acceptance of XML formatted data be placed as a Phase II issue."	Modification	"EDMS accepts inventory data that is NIF 3.0 compliant in Access, ASCII and XML format. This data is the same as the data traditionally submitted to the EPA for the NEI. This approach permits economy in the generation of the data for data providers since it only needs to be generated once and submitted twice (to EPA and to the EDMS system). EDMS accepts EDMS-specific data (Activity Detail) in Access or ASCII fixed-width format. Note that Fire data is submitted using the Point Source format. Users are able to submit Fire data as a separate source type although it is stored as a subset of the Point source data."	Verb tense XML is new functionality for EDMS. Accepting Fire data as a subset of Point source data is new for EDMS.
28	27	III.A Import	"Import via the National Environmental Information Exchange Network, under development, is a potential future capability of the EDMS. This emerging technology is described in detail at the end of this section."	Modification	"Import via the National Environmental Information Exchange Network is a potential future capability of the EDMS. This emerging technology is described at the end of this section."	The National Environmental Exchange Network reference information has been modified since release of the original HWSW plan, and it is more appropriate to include the reference to the current EPA documents.
29	28	III.A Import	"The import application will validate the structure of the submittal. If the structure is invalid, a message will be returned to the data provider within 24 hours to indicate that the data submittal could not be read. In addition, a notation will be created in the EDMS database indicating failure to read the submittal."	Modification	"The import application validates the structure of the submittal. If the structure is invalid, a message will be returned to the data provider within 24 hours to indicate that the data submittal could not be read. In addition, a notation will be created in the EDMS database indicating failure to read the submittal."	Verb tense
30	29	III.A Import	see document	Addition	"Currently, all errors are processed as "Critical.""	This sentence more accurately describes the EDMS functionality.
31	30	III.A Import	see document	Addition	"The resolution agreed upon with the Steering Committee in Fall 2004 was that since data cannot be introduced into the production database without the active engagement of the database administrator that inspects the data, the unlikely event of an agency reporting data other than its own is guarded against. Contractors and regional agency personnel with regional concerns may have need to upload data for many jurisdictions."	This sentence more accurately describes the EDMS processes.
32	31	III.A Import The National Environmental Information Exchange Network and Central Data Exchange	see document	Removal/Replacement	"The National Environmental Information Exchange Network is a partnership among states, tribes, and the U.S. Environmental Protection Agency. Partners on the Exchange Network share data efficiently and securely over the Internet. This new approach provides real-time access to higher quality data. Further information about the Exchange Network can be found at http://www.exchangenetwork.net/ . The EPA's Central Data Exchange facility is used by state, local, and tribal agencies to transfer air emission inventory data files electronically to the Emission Inventory Group (EIG). Further information about CDX can be found at http://www.epa.gov/tn/chief/nif/cdx.html . "	The National Environmental Exchange Network reference information has been modified since release of the original HWSW plan, and it is more appropriate to include the reference to the current EPA documents.

1	A Change #	B Original Section Location	C Original Text	D Type of Change	E New Text	F Reason for Change
33	32	III.B.1 Introduction	<p>"The EDMS will be a web-based system. In designing web sites and on-line applications, Pechan adheres to Section 508 of the Americans with Disabilities Act requiring all computer Web sites and on-line applications to meet the specifications set forth in 36 Code of Federal Regulations (CFR) Part 1194, Electronic and Information Technology Accessibility Standards."</p>	Modification/Addition	<p>"The EDMS is a web-based system. In designing web sites and on-line applications, Pechan adheres to Section 508 of the Americans with Disabilities Act requiring all computer Web sites and on-line applications to meet the specifications set forth in 36 Code of Federal Regulations (CFR) Part 1194, Electronic and Information Technology Accessibility Standards.</p> <p>Section 508 is an initiative to ensure equal access to data for all persons. In practice, it has been difficult to fully implement; federal web sites often have difficulty complying fully. The color shading of the GIS interface may diverge from certain provisions of Section 508. Potential alternatives, including graphic-shading (cross-hatching) instead of color shading, were discussed; other sites similar in content and mission to the EDMS that showed areas of non-compliance were cited and discussed. Pechan proposed to include the following in the Terms & Conditions page of the EDMS:</p> <p>"Users experiencing any difficulty with the site, including difficulty differentiating between colors, special pointing-device considerations, and/or font size issues are encouraged to contact the system administrator."</p> <p>As displayed in the application, "System administrator" in the above paragraph is an employee of the agency.</p>	<p>Verb tense Expanded description of Section 508 and its implementation in EDMS.</p>
34	33	III.B.1 Introduction	<p>"A prototype of the opening screen appears in Figure III-3. The image rotates at approximately six-second intervals to show various western landscapes, with emphasis on famous western parks. This prototype conveys the aesthetic style proposed for the EDMS. A conceptual diagram of the flow of the user interface appears as Figure III-4. Certain areas of the system, such as Data Import, are available conditionally based on the security level of the logged-in user."</p>	Modification	<p>"A view of the opening screen appears in Figure III-2. The image rotates at approximately six-second intervals to show various western landscapes, with emphasis on famous western parks. This opening screen conveys the aesthetic style of the EDMS application. A conceptual diagram of the flow of the user interface appears as Figure III-3. Certain areas of the system, such as Data Import, are available conditionally based on the security level of the logged-in user."</p>	<p>Verb tense/Wording Figure III-3(2) replaced with snapshot from EDMS production.</p>
35	34	III.B.2 GIS Interface	<p>"GIS provides users with the ability to display and analyze data that is related to a geographic location. GIS provides a means for an organization to display data that is easily read and understood. The WRAP EDMS will include a fully functioning GIS interface. Prototype functionality is shown in Figures III-5 to III-9 below.</p> <p>The EDMS will include the following GIS Functionality:"</p> <p>"The EDMS GIS module will include the following layers of data:"</p>	Modification	<p>"GIS provides users with the ability to display and analyze data that is related to a geographic location. GIS provides a means for an organization to display data that is easily read and understood. The WRAP EDMS includes a fully functioning GIS interface. Prototype functionality is shown in Figures III-4 to III-8 below.</p> <p>The EDMS includes the following GIS Functionality:"</p> <p>"The EDMS GIS module includes the following layers of data:"</p>	Verb tense
36	35	III.B.2 GIS Interface Fire	see document	Removal	N/A	<p>No longer relevant for system as delivered. WRAP Fire data has been developed by a contractor according to documents found at http://www.wrapair.org/forums/fejftasks/FEJFtask7.html. Fire data has been provided to EDMS in Point source format.</p>
37	36	III.C Fire Emissions Calculations	see document	Removal	N/A	<p>No longer relevant for system as delivered. WRAP Fire data has been developed by a contractor according to documents found at http://www.wrapair.org/forums/fejftasks/FEJFtask7.html. Fire data has been provided to EDMS in Point source format.</p>

1	A Change #	B Original Section Location	C Original Text	D Type of Change	E New Text	F Reason for Change
38	37	III.D Reporting	<p>"In addition to the GIS interface, tabular and flat file data formats, graphs and charts will be available. The EDMS will also include user-defined reporting capabilities.</p> <p>The EDMS will include a series of standard summary reports broken down by source type, geographic location, and pollutant. It will also include a series of reports designed specifically to meet the RHR emissions tracking and reporting requirements. The RHR reports will include special reports for CAC, pre-trigger SO2 stationary sources, mobile sources, fire sources, and windblown dust sources. An analysis of EDMS report layouts appears in Appendix C. "</p>	Modification	<p>"In addition to the GIS interface, tabular and flat file data formats, graphs and charts are available. The EDMS also includes user-defined reporting capabilities.</p> <p>The EDMS includes a series of standard summary reports broken down by source type, geographic location, and pollutant. It also includes a series of reports designed specifically to meet the RHR emissions tracking and reporting requirements. The RHR reports include special reports for CAC, pre-trigger SO2 stationary sources, mobile sources, and fire sources. An analysis of EDMS report layouts appears in Appendix B."</p>	EDMS does not include a separate windblown dust report.
39	38	III.D.1 Standard Reports and Queries	<p>"The EDMS will have the capability to produce the following standard and sector-specific reports in tabular and simple plots (i.e., bar graph and pie chart) formats and allow queries of the same information including presentation in GIS format. "</p>	Modification	<p>"The EDMS has the capability to produce the following standard and sector-specific reports in tabular and simple plots (i.e., bar graph and pie chart) formats and allow queries of the same information including presentation in GIS format."</p>	Verb tense
40	39	III.D.1 Standard Reports and Queries	see document	Modification	Altered report list to match EDMS production.	This will more accurately reflect the reports in the production system.
41	40	III.D.2 Sector Specific Reports	see document	Modification	Altered report list to match EDMS production.	This will more accurately reflect the reports in the production system.
42	41	III.E.1 Query Report Based Export	<p>"As indicated in Reporting section, data specified through the navigation in the user interface can be written to a file for subsequent download. "</p>	Modification	<p>"As indicated in the Reporting section, data specified through the navigation in the user interface can be written to a file for subsequent download. "</p>	Typographical error
43	42	III.E.2 Model Ready Export	<p>"The EDMS will have the ability to produce model-ready input files for such models as SMOKE using the annual data stored in the system."</p>	Modification	<p>"The EDMS has the ability to produce model-ready input files for such models as SMOKE using the annual data stored in the system."</p>	Verb tense
44	43	III.E.3 Special Analysis Data Export	<p>"Users will have the ability to develop and execute user-defined queries, and output the result set in a variety of formats. "</p>	Modification	<p>"Users have the ability to develop and execute user-defined queries, and output the result set in a variety of formats. "</p>	Verb tense
45	44	III.E.4 RPO Data Exchange Protocol Export	<ul style="list-style-type: none"> · Chemical Speciation · Spatial Surrogates · Temporal Allocation · Growth and Control" 	Modification	<ul style="list-style-type: none"> · Chemical Speciation; · Spatial Surrogates; · Temporal Allocation; and · Growth and Control" 	Punctuation
46	45	III.F Security	<p>"The EDMS will be protected by security features designed to ensure the integrity of collected data. Users will require a User ID and Password. The registration process will collect the email address of each user so that users can be proactively advised of significant EDMS events.</p> <p>The EDMS will have a wide variety of users that can be classified or categorized into multiple user types. It is envisioned that there will be several EDMS user types all with potentially different reasons to use EDMS. Some of the anticipated user groups will include (but are not limited to):"</p>	Modification	<p>"The EDMS is protected by security features designed to ensure the integrity of collected data. Users will require a User ID and Password. The registration process collects the email address of each user so that users can be proactively advised of significant EDMS events.</p> <p>The EDMS has a variety of users that can be classified or categorized into multiple user types. There are several EDMS user types all with potentially different reasons to use EDMS. Some of the user groups include (but are not limited to):"</p>	Verb tense/Wording

1	A Change #	B Original Section Location	C Original Text	D Type of Change	E New Text	F Reason for Change
47	46	III.F Security	"Functionality will be granted to users based on their security level a described in Table III-3. Functionality, in order of increasing complexity, includes being able to view data, view reports, write ad-hoc reports, extract data and provide database administration."	Modification	"Functionality will be granted to users based on their security level as described in Table III-1. Functionality, in order of increasing complexity, includes being able to view data, view reports, write ad-hoc reports, extract data and provide database administration."	Typographical error
48	47	III.F Security	<p>"Access to the Import feature is conditionally based on the user's association with a data provider organization or sector-specific data administrator. This implementation of organization and sector-specific security will allow data providers to only input, modify, or delete data associated with their organization, such as state or tribe. Sector-specific data administrators will be able to add, change or delete data for a specific sector in which they have expertise across all organizations.</p> <p>Security features will be managed through the application. Tables will be created which will store information related to the user's role (as discussed above), the submitting organization the user is associated with and the sector(s) that a user may change within the submitting agencies information. Another type of user as mentioned above is a sector-specific data administrator user. A user/role table may look (virtually) something like the table below: "</p> <p>"While the table above is shown as one table, six tables will be used to manage the security relationships in practice. A user will be validated upon login to the application.</p> <p>Certain users, identified as Preliminary Review users, will be able to review the staging</p> <p>Management of security and the addition of the new users will be managed through an a</p>	Removal/Replacement	<p>Altered Table III-3 to more accurately reflect the security levels implemented in EDMS.</p> <p>Table III-4 was removed.</p> <p>"Originally, EDMS was designed to be implemented with sector- and organizational-specific security; however, in practice all users are members of the WRAP organization with access to all sectors. The security levels are Data Administrator, General User, Data Provider, and Data Analyst. Viewing of production data is controlled by the Public/Private flag. Currently, inventories marked private are available to Data Providers and Data Administrators.</p> <p>A user will be validated upon login to the application. If the user does not exist in the system or provides an incorrect password, the user will not be permitted to log in. If the user is a valid user, the associated role information will be selected from the user/role table. This information will control which forms will be available to open, as well as specific functionality that is available on that form. If all functionality on a form is unavailable, the form will not be provided to the user. If only certain functionality is available to the user, unavailable functionality will be either grayed out</p> <p>Management of security and the addition of the new users will be managed through an a</p>	As noted, originally EDMS was designed with a more complex security level. In practice, a less complex method has been implemented.
49	48	III.G User's Manual	<p>"The User's Manual will describe how to use each part of the system, and will provide a reference to users on the general use of the system. It will provide specific information including a glossary of nomenclature; support guidance; and frequently asked questions and their answers. The outline for the User's Manual includes:"</p> <p>"The draft User's Manual will be circulated for comment; comments will be integrated in coordination with WRAP. The User's Manual will be available to users when the system is launched to the user community."</p>	Modification	<p>"The User's Manual describes how to use each part of the system, and provides a reference to users on the general use of the system. It provides specific information including a glossary of nomenclature; support guidance; and frequently asked questions and their answers. The outline for the User's Manual includes:"</p> <p>"The User's Manual is available to users on the EDMS website."</p>	Verb tense More accurately presents the current state of User's Manual.
50	49	III.H User Management and Communication	<p>"Most of the content of the EDMS is intended for the public; accordingly, any user may access most of the system (restricted portions include such capabilities as uploading data). All users must register, identifying themselves and a valid e-mail address. At the time of registration, users will be asked to indicate if they would like to receive automatic notification of EDMS-related news and events, such as:</p> <ul style="list-style-type: none"> - Data submittal timing; - Version locking; - Software updates; and - Report availability. <p>A listserv application will likely be used to disseminate the information via email. Users may modify their level of participation in the messaging program through the EDMS interface."</p>	Modification	<p>"Most of the content of the EDMS is intended for the public; accordingly, any user may access most of the system (restricted portions include such capabilities as uploading data). All users must register, identifying themselves and a valid e-mail address. At the time of registration, users are asked to indicate if they would like to receive automatic notification of EDMS-related news and events, such as:</p> <ul style="list-style-type: none"> - Data submittal timing; - Version locking; - Software updates; and - Report availability. <p>A listserv application is used to disseminate the information via email. Users may modify their level of participation in the messaging program through the EDMS interface."</p>	Verb tense/Punctuation
51	50	IV.A Database Sizing Requirements	"The structure of the database will require a transfer holding area, a transaction holding area (with audit and delete tables), a staging holding area (with audit and delete tables), and a production area. "	Modification	"The structure of the database requires a transfer holding area, a transaction holding area (with audit and delete tables), a staging holding area (with audit and delete tables), and a production area. "	Verb tense

1	A Change #	B Original Section Location	C Original Text	D Type of Change	E New Text	F Reason for Change
52	51	IV.B Bandwidth Requirement	"The EDMS will require the transfer of large amounts of data from the system to the user. "	Modification	"The EDMS requires the transfer of large amounts of data from the system to the user."	Verb tense
53	52	IV.C Processing/CPU Requirement	"The EDMS system will rely on multiple servers to perform various functions for this project, both during development and deployment. "	Modification	"The EDMS system relies on multiple servers to perform various functions for this project, both during development and deployment. "	Verb tense
54	53	IV.E Physical Security	"The EDMS is to be physically housed at UNC at Chapel Hill (UNC-CH) Computing Center. "	Modification	"The EDMS is physically housed at UNC at Chapel Hill (UNC-CH) Computing Center. "	Verb tense
55	54	V.A Test Plan	see document	Removal/Replacement	"The EDMS application has been implemented in both production environment mode and testing environment mode. Changes to the application are applied first to the test environment. These changes are applied to the production environment only after unit, system and regression testing have been successfully completed in the test environment."	The development/implementation test plan was inappropriate for this document and has been replaced with a statement of change management testing.
56	55	V.B Training Strategy	"An organizational principle for the EDMS is to create a system that is intuitive and predictable, accordingly requiring less training for users. "	Modification	"An organizational principle for the development of EDMS was to create a system that is intuitive and predictable, accordingly requiring less training for users. "	Verb tense/Wording
57	56	V.B Training Strategy Methods	"General training will be conducted at an on-site facility in the WRAP region during the implementation phase of the project. This training will consist of lectures in a classroom setting, followed by on-line sessions designed to give participants practice on the material addressed in the lectures. The EDMS Development Team will provide the training materials, such as PowerPoint slides, assignment sheets and training exercises. User manuals will also be provided."	Modification	"General training was conducted at an on-site facility in the WRAP region during the implementation phase of the project. This training consisted of lectures in a classroom setting, followed by on-line sessions designed to give participants practice on the material addressed in the lectures. The EDMS Development Team provided the training materials, such as PowerPoint slides, assignment sheets and training exercises. User manuals were also provided."	Verb tense
58	57	V.C.2 Support	"Pechan will provide both web-based, e-mail-based, and telephone support for the EDMS through the duration of the contract. Pechan personnel have thousands of hours experience providing user assistance on emissions software applications used nationally. The specific provisions for interactive user support will be detailed in the Software and Hardware Development Plan."	Modification	"Pechan provides both web-based, e-mail-based, and telephone support for the EDMS through the duration of the contract. Pechan personnel have thousands of hours experience providing user assistance on emissions software applications used nationally. The specific provisions for interactive user support are detailed in the Software and Hardware Development Plan."	Verb tense
59	58	V.D Data Take-On	see document	Removal/Replacement	"The EDMS system began accepting data provider submittals on June 30, 2004. Data providers were given instructions/training on the data submittal process prior to June 30, 2004 and as detailed in this document. "	Since this event was part of the initial implementation, it was appropriate to reword this section.
60	59	V.E User Acceptance Strategy	<p>"One of the most critical functions in the development of the EDMS is the acceptance of the system by its users. The system must do more than meet user requirements. A truly successful system must create excitement among the user community and help them do their jobs easier. In order to gain user acceptance, the plan includes involvement of key users throughout the development of the EDMS.</p> <p>Methods</p> <p>During the design and development phases of the life cycle, users will be involved in verifying that the specified requirements are being met, that report and screen prototypes are acceptable and that training, security and conversion plans are complete.</p> <p>Every effort will be made to resolve outstanding issues that have arisen during the design and development phases. "</p>	Modification	<p>"One of the most critical functions in the continued development and enhancement of the EDMS is the acceptance of the system by its users. The system must do more than meet user requirements. A truly successful system must create excitement among the user community and help them do their jobs easier. In order to gain user acceptance, the involvement of key users is included throughout the development and enhancement of the EDMS. The Methods and Critical Success factors below focus on the initial design and development phases of the EDMS; however, the structure of this approach is also appropriate for the enhancement phases of the application.</p> <p>Methods</p> <p>During the design, development, and enhancement phases of the life cycle, users will be involved in verifying that the specified requirements are being met, that report and screen prototypes are acceptable and that training, security and conversion plans are complete.</p> <p>Every effort will be made to resolve outstanding issues that have arisen during these phases. "</p>	<p>Verb tense</p> <p>More accurately describes the implementation User Acceptance Strategy and the approach to future enhancements.</p>
61	60	V.F Oversight	"Orderly operation of the system and database will be the responsibility of the EDMS DBA assisted by the Database Analyst (DA). "	Modification	"Orderly operation of the system and database is the responsibility of the EDMS DBA assisted by the Database Analyst (DA). "	Verb tense
62	61	VI.A Progress Reports	"Pechan will prepare the monthly progress report to be delivered by the 10th working day of each month. The progress report will include: work in progress; work completed, including significant contacts; status of work in relation to the schedule; and obstacles to progress. The progress will also address the fiscal considerations of the contract. "	Modification	"Pechan will prepare the monthly progress report to be delivered by the 10th working day of each month. The progress report will include: work in progress; work completed, including significant contacts; status of work in relation to the schedule; and obstacles to progress. The progress report will also address the fiscal considerations of the contract. "	Typographical error

1	A Change #	B Original Section Location	C Original Text	D Type of Change	E New Text	F Reason for Change
63	62	Appendix B Fire White Paper	see document	Removal	N/A	No longer relevant for system as delivered. WRAP Fire data has been developed by a contractor according to documents found at http://www.wrapair.org/forums/fejf/tasks/FEJFtask7.html . Fire data has been provided to EDMS in Point source format.
64	63	Appendix C Standard Report Layouts	see document	Modification	see document	This will more accurately reflect the reports in the production system as displayed by their Excel formats.
65	64	Appendix D Sample Use Cases	see document	Removal	N/A	These were sample use cases. Since the section does not contain complete use cases, it is appropriate for time and budget reasons to remove it.
66	65	Appendix E Sample Features	see document	Removal	N/A	These were sample features. Since the section does not contain complete features, it is appropriate for time and budget reasons to remove it.
67	66	Appendix F Phase II Concepts	see document	Removal	N/A	Phase II was an appropriate section at the time of the original delivery; however, priorities for delivery should now refer to project management documents since that time.
68	67	Appendix G EDMS Input Formats	see document	Addition	XML	XML is new functionality for EDMS.