LAND USE PLANNING (LUP) AREA BOUNDARIES DATA STANDARD REPORT

March 26, 2010

Version 2.2

United States Department of Interior
Bureau of Land Management
National Operations Center
Program Management Office
Denver Federal Center
Denver, Colorado 80225

Table of Contents

1. Introduction *General Information about the standard (For more information see H 1283-1, Data Administration and Management Handbook, Chapter 7 - Developing Data Standards)General Information about the standard (For more information see WO-IM-2003-125 attachment 2: Guidance for Managing BLM Data Standards: How to Adopt, Implement, and Maintain Data Standards, pages 17-20)*

Description of Standard

Provide a standard for data required to portray the boundary required for a Land Use Plan. In the Land Use Planning Handbook this is called the *"Planning Area.* The geographic area within which the BLM will make decisions during a planning effort. A planning area boundary includes all lands regardless of jurisdiction; however the BLM will only make decisions on lands that fall under the BLM's jurisdiction (including subsurface minerals). Unless the State Director determines otherwise, the planning area for a RMP is the geographic area associated with a particular field office (43 CFR 1610.1(b)). State Directors may also establish regional planning areas that encompass several field offices and/or states, as necessary."

The standard will facilitate portrayal, queries, and reporting for this data set.

This data standard concerns Land Use Planning Area Boundaries only. Other data standards will cover Land Use Decision Areas and Land Use Analysis Areas and Implementation Areas. A Decision Area may have its own ROD date, separate from the Land Use Plan itself.

The implementation of this data standard will include the links to the land use plans' websites, if available.

Affected Groups (who is effected, who should care)	Land Use Planners, GIS Specialists, and anyone who requires use of Land Use Plan Boundaries
Sponsor (business of sponsor)	Michael Tupper, Branch Chief, Decision Support (WO-210)

2. Data Steward/GIS Contact Identification *Include lead agency if appropriate; who is/are the data steward(s) and GIS Contact(s)*

Office	Role	Name	Contact Information
WO-210	Business Data Steward, Branch Chief, Planning and NEPA (WO-210)	Sandra Meyers	Sandra_Meyers@blm.gov 202-557-3373
		Leonard Gore	Leonard_Gore@blm.gov 202-557-3563
WO-210	BLM Geospatial Data Steward	Bob Bewley	Bob_Bewley@blm.gov 202 452-5111

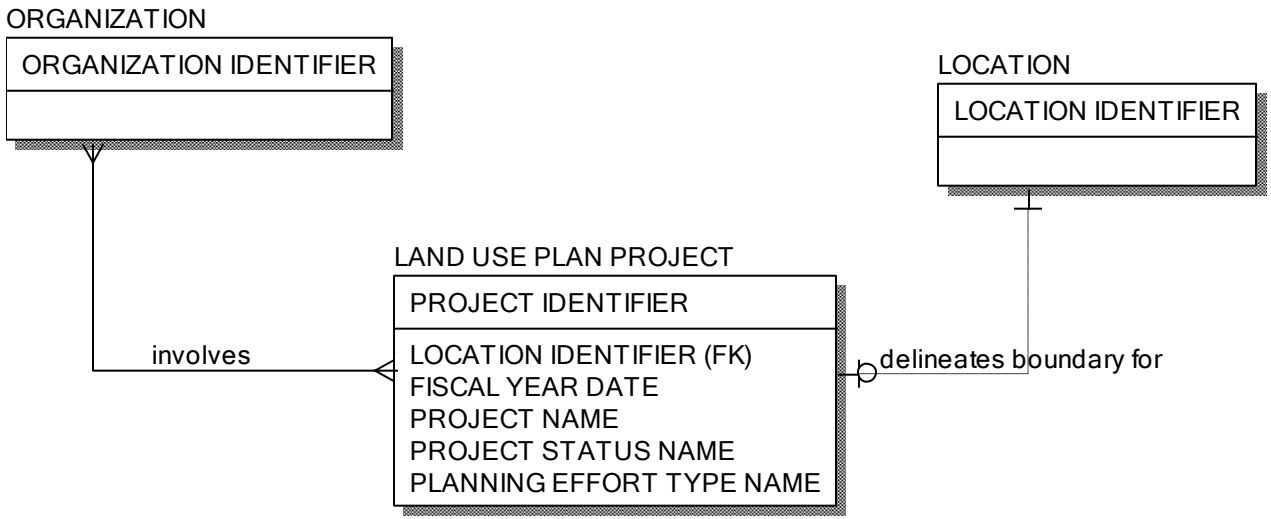
3. Data Set Characteristics

Overall Security: Identify security level (e.g. public/ non-public) If non-public state why	PUBLIC for current approved plans and for boundaries during comment periods INTERNAL only for work products	
Who has create, read, update, and/or delete privileges	GIS Specialists, Land Use Planners	
Data Collection & Maintenance Protocols: data collection and maintenance procedures that would apply	a) Accuracy Requirements: what level is required?	The expected data accuracy will be 95% according to data steward. The expected spatial accuracy is approximately +/- 40 feet. The actual measured spatial accuracy is located within the attributes of the data. Spatial Accuracy: ACCURACY MEASUREMENT IN FEET
	b) Collection & Input Protocols: what are approved methods?	There is currently no single method for data collection and input for this data set. Data may be collected and input from a variety of sources as long as the data are documented with metadata. BLM has not yet migrated enough of its existing data stores to any specific format to eliminate any methods for digital data collection. For creating baseline boundaries, use the best available source using in priority order: Cadastral, GCDB, NAIP, 1/24k DRG.
	c) Update Procedures: On what basis are updates completed (e.g. township basis, case file basis); how often; by when?	Land Use Planning Area Boundaries are updated on new plan development. Revisions or amendments that require changes to the planning area will be updated on an annual basis. The original boundaries that were updated will be placed in the historical data set. At the state level, on an annual basis, the data sets (arcs and polygons) will be archived.

Data Quality: measures that will be applied to the data	a) Transaction level data quality: how will review of data quality take place during data entry	Verified by WO Planning Coordinator upon updates to the national data set for overlaps, gaps and other geospatial issues and to ensure all data is compliant with BLM policy.
	b) Monitoring level data quality: what systematic review of data quality will take place and how will it be done?	GIS Specialist and State Planning Lead should both review the data for quality upon entry and then during at least annual reviews. At least a semi-annual review will take place in June and December of each year.
Relationship to Other Standards: Identify any other data standards (or applications) that are related.		Land Use Decision Areas, Land Use Analysis Areas and Implementation Areas are related to this standard. All boundaries designated by Land Use Plans, such as Areas of Critical Environmental Concern, Grazing (Allotment, Pastures), National Resource Conservation System (NRCS), Visual Resource Management (VRM). Also related: BLM Administrative Office Boundaries and Land Health Reporting.

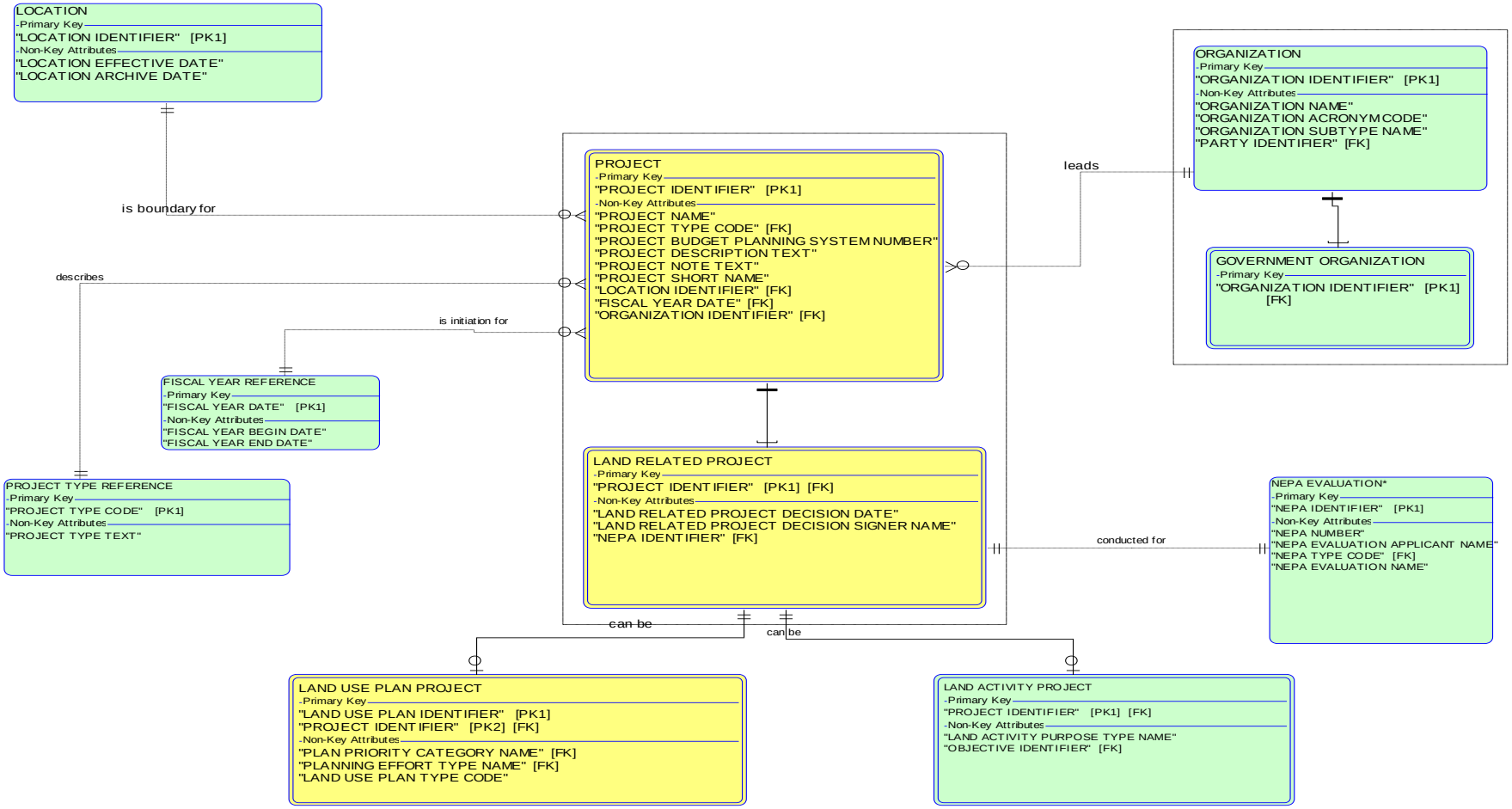
4. Data Model Characteristics *Each data standard is to be supported by a data model which includes entities and relationships between entities*
a) **Conceptual Data Model** – a high-level data model that presents the basic concepts that are included in a logical data model.
b) **Logical Data Model** – a detailed, graphical depiction of logical data showing entities (tables) and how they relate to each other.
c) **Entity Descriptions:** places, persons, things, or concepts described in the data set (aka tables) Notes: Data Element Names (aka fields) - must adhere to WO IM-2004-60 Attachment 3: Data Element Naming Conventions

Land Use Planning Boundary Conceptual Data Model



Land Use Planning Boundary Logical Data Model

This is a diagram of land use planning boundaries. The 'green' entities are not part of this standard (and do not need to be reviewed). They are provided to show context and provide relationships to other data only. To improve viewing, zoom to 150%; to print a larger version, use the 11'x17' model on the same webpage as this document.



Legend: PK (Primary Key) – uniquely identifies one occurrence (row) of the entity; FK (Foreign Key): is all or part of the PK of another entity it is related to. PK1, PK2 – indicates the PK is made of more than 1 attribute to make it unique. The Word Identifier indicates that this will be a designed key, its format is not known, but the modeling tool required a format and size. The actual content and size of the identifier will be determined during design.

This lists all entities and attributes (in alphabetical order) in the logical data model shown above. Not all attributes listed below, while important to Land Use Planning, will be included in the implementation of the data standard. In some cases, the attributes are already included in planned or existing systems and would be redundant if captured in more than one place.

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key	Definition
LAND RELATED PROJECT							DRAFT ENTITY A type of project that is related to work that is planned and implemented on BLM land. This includes Land Use Plans and Land Activity (Implementation) Projects.
		LAND RELATED PROJECT DECISION DATE	date		Opt		The date on which the decision is signed by the person who has approval authority for the decisions.
		LAND RELATED PROJECT DECISION SIGNER NAME	character	100	Opt		The name of the person who signs the decisions, agreeing that the decisions can be adopted.
		PROJECT IDENTIFIER	character	12	Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
		NEPA IDENTIFIER	character	10	Yes	FK	The designed primary key that will uniquely identify a single occurrence of the entity.
LAND USE PLAN PROJECT							DRAFT ENTITY A project that documents the guidance for the management of surface public lands and subsurface mineral estate within a defined geographic area. A Land Use Plan is a set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of FLPMA; an assimilation of land-use-plan-level decisions developed throughout the planning process outline in 43 CFR 1600, regardless of the scale at which the decisions were developed. (Land Use Planning Manual).
		LAND USE PLAN IDENTIFIER	character	12	Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
		PROJECT IDENTIFIER	character	12	Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		PLANNING EFFORT TYPE NAME	character	10	Yes	FK	The name of the type of planning effort that is being conducted, depending on the requirements for the plan. Domain: new, revision, amendment.
		PLAN PRIORITY CATEGORY NAME	character	20	Yes	FK	A name that designates the priority category of a plan. Example values could include: none, time sensitive, NLCS, energy, other.
		LAND USE PLAN TYPE CODE	character	3	Yes		A code that indicates the type of land use plan (an RMP or an MFP).
PROJECT							A temporary endeavor undertaken to create a unique product, service or result. It has a start and end date, defined deliverables, interrelated activities and requires resources and a sponsor.

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key	Definition
		PROJECT IDENTIFIER	character	12	Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
		PROJECT TYPE CODE	character	10	Yes	FK	The code that designates the type of project that is being conducted.
		PROJECT NAME	character	255	Yes		The name given to a project that represents the full, official name associated with the project.
		PROJECT BUDGET PLANNING SYSTEM NUMBER	character	10	Opt		A number that identifies the information related to a budget plan for the project.
		PROJECT DESCRIPTION TEXT	character	200	Yes		The text that further describes the project with any additional details.
		PROJECT NOTE TEXT	character	255	Opt		Text which contains optional information relevant to the project.
		PROJECT SHORT NAME	character	40	Yes		A name by which the project can be identified that is a shorter version of the full Project Name.
		LOCATION IDENTIFIER	integer		Yes	FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		ORGANIZATION IDENTIFIER	integer		Yes	FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		FISCAL YEAR DATE	character	4	Yes	FK	The date which indicates a fiscal year for the Government. (The year the project was initiated).

***Key** **(PK: Primary Key) (FK: Foreign Key which is PK of related entity) (PK, FK: Foreign Key part of PK)**

The following entities shown on the logical data model are not part of this standard but are here for informational purposes.

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key*	Definition
GOVERNMENT ORGANIZATION A type of organization that is a governmental unit.							DRAFT ENTITY
		ORGANIZATION IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
LOCATION A defined place that requires a way to locate it by some means. Note: Entities linked to Location have the potential for a geospatial aspect.							DRAFT ENTITY
		LOCATION ARCHIVE DATE	date		Opt		The date which is the calendar year, month, and day when the position of the Location is considered no longer valid but has historical value.
		LOCATION EFFECTIVE DATE	date		Yes		The date which is the calendar year, month, and day when the position of the Location was produced.
		LOCATION IDENTIFIER	integer		Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
NEPA EVALUATION A required evaluation which follows the procedures in the National Environmental Policy Act regulations to analyze the environmental impacts as part of a federal action.							APPROVED ENTITY: BLM
		NEPA IDENTIFIER	character	12	Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
		NEPA DESICION TEXT	character	200	Opt		The text that provides additional information on the decision that has been signed by the responsible official.
		NEPA PROJECT APPLICANT NAME	character	100	Opt		The name of the project proponent who submitted the application that resulted in the NEPA project being created.
		NEPA NUMBER	character	29	Yes		The alphanumeric number assigned to a NEPA project which contains the department, agency, state, office, year, document counter and NEPA type.
		NEPA TYPE CODE	character	5	Yes	FK	The code associated with the NEPA TYPE NAME that designates the type of NEPA project. Domain values: EA, EIS, CX and DNA.
ORGANIZATION A formal group of people organized for a purpose.							DRAFT ENTITY
		ORGANIZATION IDENTIFIER	integer		Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key*	Definition
		ORGANIZATION NAME	character	100	Yes		The official name by which the organization is known. An organization may include businesses, agencies, or corporations, but not individual persons.
		ORGANIZATION SUBTYPE NAME	character	20	Yes		A description of the type of organization within an organization class (e.g., department, region, agency, etc.).
		ORGANIZATION ACRONYM CODE	character	10	Opt		The code that indicates the preferred acronym for an organization.
		PARTY IDENTIFIER	integer		Yes	FK	The designed primary key that will uniquely identify a single occurrence of the entity.
PROJECT TYPE REFERENCE The domain of values for each of the codes associated with a type of project.							DRAFT ENTITY
		PROJECT TYPE CODE	character	10	Yes	PK	The code that designates the type of project that is being conducted.
		PROJECT TYPE TEXT	character	100	Yes		The text that describes the code for a specific project type.
						***Key**	**(PK: Primary Key) (FK: Foreign Key which is PK of related entity) (PK, FK: Foreign Key part of PK)**

5. Business Rules

Rules under which data is used and modified (See H 1283-1, Data Administration and Management Handbook, Chapter 8 – Documenting Business Rules)

1. Rule Name			Change to existing land use planning areas			
Rule source (e.g. handbook, guidance, directive)			Land Use Planning Handbook			
Source Description (brief explanation of where the rule comes from)			Amendments and Revisions in LUP Handbook			
Rule Statement (what is the rule?)			An amendment or a revision can change an existing land use planning area. See Appendix C for more details.			
Type of Rule (e.g. Business Term, Standard, Guideline)			Standard			
Is it Mandatory, Optional or Not Applicable because it is a Business Term?		Automation Restriction? (Yes, No – *caused by the limits of technology*)		No		
How is Rule Implemented? (Manual Process, Computer Application, Not Applicable)				Manual		
Name of Application or Manual Process						
Rule Status (Active, Inactive)	Active	Rule Effective Dates (rules kept for historical purposes)	Beginning Date		Ending Date	

2. Rule Name	Historical Land Use Planning Areas
Rule source (e.g. handbook, guidance, directive)	Guidance
Source Description (brief explanation of where the rule comes from)	Land Use Planning Handbook
Rule Statement (what is the rule?)	Land Use Planning Area Boundaries are moved to the history data set when: 1) An amendment has a ROD which changes the Planning Area Boundary. The original Planning Area Boundary is archived and the Land Use Planning Archive Date is populated with the amendment ROD Date. 2) A new Land Use Plan X includes an area from another Land Use Plan Y. The original Y Land Use Planning Area Boundary is archived and the Boundary Inactive Date is populated with the new Plan X ROD Date. A new planning area boundary for Y is created that excludes the area that is now in Land Use Plan X.

	3) A new land use plan replaces another land use plan. The prior Land Use Planning Area Boundary is archived. See appendix C below for more details.					
Type of Rule (e.g. Business Term, Standard, Guideline)	Guideline					
Is it Mandatory, Optional or Not Applicable because it is a Business Term?	Mandatory	Automation Restriction? (Yes, No – *caused by the limits of technology*)	No			
How is Rule Implemented? (Manual Process, Computer Application, Not Applicable)	Manual					
Name of Application or Manual Process						
Rule Status (Active, Inactive)	Active	Rule Effective Dates (rules kept for historical purposes)	Beginning Date		Ending Date	

3. Rule Name	Lead Organization for Land Use Plan					
Rule source (e.g. handbook, guidance, directive)	Land Use Planning Handbook					
Source Description (brief explanation of where the rule comes from)						
Rule Statement (what is the rule?)	Many organizations may be involved in various roles on a land use plan. If more than one organization is involved in a land use plan, one is designated as the lead organization.					
Type of Rule (e.g. Business Term, Standard, Guideline)						
Is it Mandatory, Optional or Not Applicable because it is a Business Term?	Mandatory	Automation Restriction? (Yes, No – *caused by the limits of technology*)	No			
How is Rule Implemented? (Manual Process, Computer Application, Not Applicable)	Manual					
Name of Application or Manual Process						
Rule Status (Active, Inactive)	Active	Rule Effective Dates (rules kept for historical purposes)	Beginning Date		Ending Date	

4. Rule Name			" Existing" and "In Progress" land use plans			
Rule source (e.g. handbook, guidance, directive)			ePlanning			
Source Description (brief explanation of where the rule comes from)			Land Use Planning			
Rule Statement (what is the rule?)			There are two types of Planning Area Boundaries: 1)"Existing" Land Use Plans which have a Record of Decision Date and are being implemented. Only an amendment can change the planning area boundary. 2)"In Progress" Planning Area Boundaries which are created during the planning process and do not have a Record of Decision. The "In Progress" Planning Area Boundary can become an "existing" planning area boundary once the land use plan has been approved. Changes "In Progress" are not considered records and old boundaries will not be archived.			
Type of Rule (e.g. Business Term, Standard, Guideline)			Business Term			
Is it Mandatory, Optional or Not Applicable because it is a Business Term?		Not Applicable	Automation Restriction? (Yes, No – *caused by the limits of technology*)			
How is Rule Implemented? (Manual Process, Computer Application, Not Applicable)		Not Applicable				
Name of Application or Manual Process						
Rule Status (Active, Inactive)	Active	Rule Effective Dates (rules kept for historical purposes)	Beginning Date		Ending Date	

5. Rule Name	Record of Decisions (RODs)
Rule source (e.g. handbook, guidance, directive)	ePlanning
Source Description (where the rule comes from)	Planning Handbook
Rule Statement (what is the rule?)	The Land Related Project (Record of) Decision Date is the date on which the LAND USE PLAN or amendment is officially approved, the Record of Decision (ROD). There is only one ROD for the land use plan. A decision area (Land use Decision Area) will also have its own decision date, but this is not the same as the ROD date.

Type of Rule (e.g. Business Term, Standard, Guideline)			Business Term			
Is it Mandatory, Optional or Not Applicable because it is a Business Term?		Not Applicable	Automation Restriction? (Yes, No – *caused by the limits of technology*)			
How is Rule Implemented? (Manual Process, Computer Application, Not Applicable)		Not Applicable				
Name of Application or Manual Process						
Rule Status (Active, Inactive)	Active	Rule Effective Dates (rules kept for historical purposes)	Beginning Date		Ending Date	

6. Rule Name		All data elements for the land use planning area boundaries are mandatory.				
Rule source (e.g. handbook, guidance, directive)		ePlanning				
Source Description (where the rule comes from)		Planning Handbook				
Rule Statement (what is the rule?)		If a data element value is missing, use "MSG" for missing domain values or use "Missing But Required" for text fields.				
Type of Rule (e.g. Business Term, Standard, Guideline)			Business Term			
Is it Mandatory, Optional or Not Applicable because it is a Business Term?		Not Applicable	Automation Restriction? (Yes, No – *caused by the limits of technology*)			
How is Rule Implemented? (Manual Process, Computer Application, Not Applicable)		Not Applicable				
Name of Application or Manual Process						
Rule Status (Active, Inactive)	Active	Rule Effective Dates (rules kept for historical purposes)	Beginning Date		Ending Date	

7. Rule Name	Land Related Project Decision Signer Name
Rule source (e.g. handbook, guidance, directive)	ePlanning

Source Description (where the rule comes from)			Planning Handbook			
Rule Statement (what is the rule?)			The person who is designated as the senior signatory will be used for the Land Related Project Decision Signer Name.			
Type of Rule (e.g. Business Term, Standard, Guideline)				Business Term		
Is it Mandatory, Optional or Not Applicable because it is a Business Term?		Not Applicable		Automation Restriction? (Yes, No – *caused by the limits of technology*)		
How is Rule Implemented? (Manual Process, Computer Application, Not Applicable)		Not Applicable				
Name of Application or Manual Process						
Rule Status (Active, Inactive)	Active	Rule Effective Dates (rules kept for historical purposes)	Beginning Date		Ending Date	

6. Other Material *Any other supporting material that aids in the understanding or use of the data standard; include specific geographic, organizational, or applicability constraints for non-national standards.*

Data Standard Proposal for Land Use Planning Boundaries

7. Domains Specific to this Standard. The attributes and their domain values relevant to this data standard.

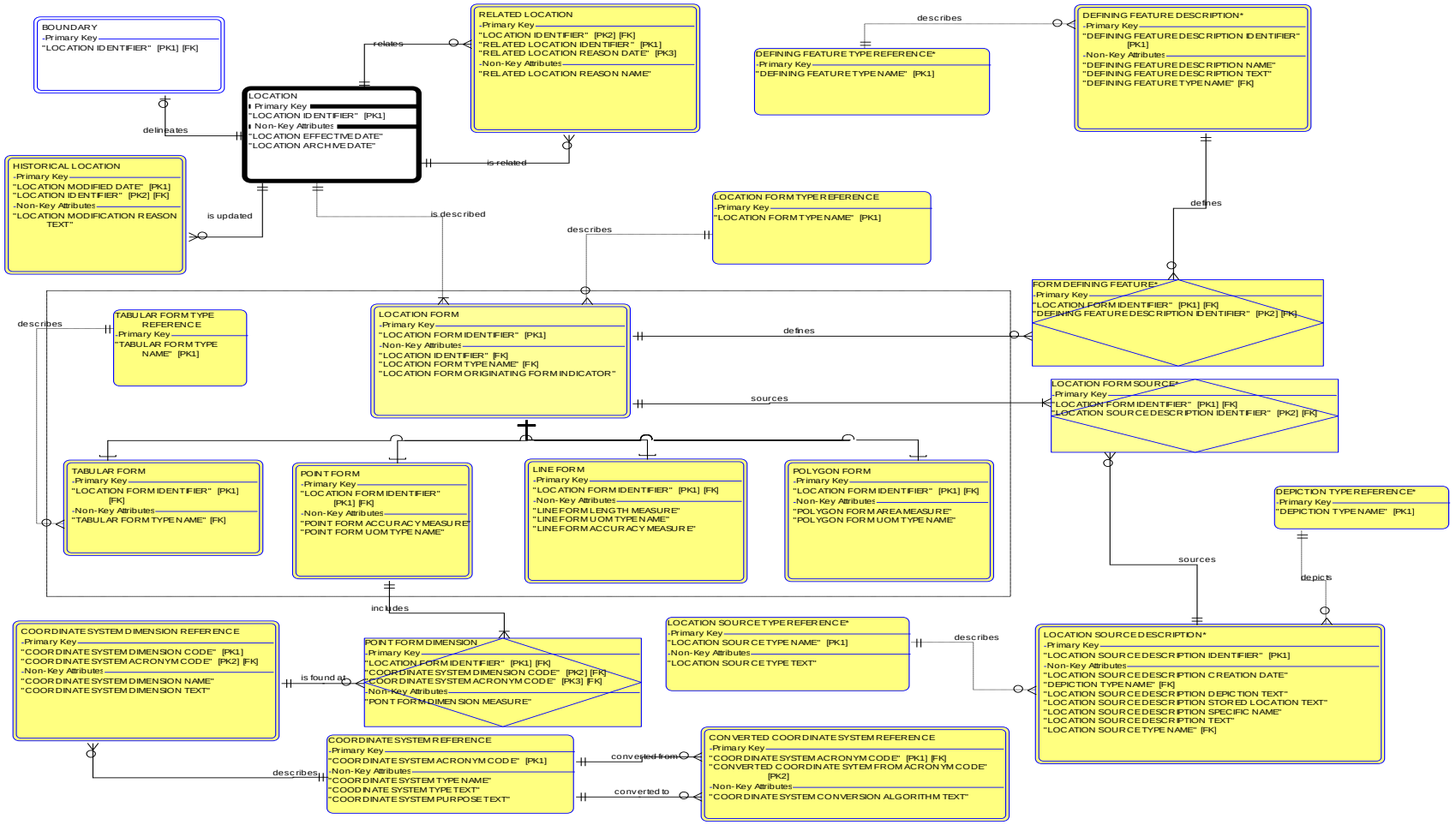
Link to domains specific to Land Use Planning

Appendix A – Data Categories

How this standard fit into/supports the Bureau Enterprise Architecture.	
What DOI Subject Areas and Information Classes does this standard cover? Subject Area: A collection of data classifications representing broad categories of information that support a line of business. Information Class: A logical grouping of entities that are subcategories of the subject areas. For the full list of the approved Subject Areas and their Information Classes, please see http://web.blm.gov/data_mgt/guidelines/DOI_SubjectArea_InfoClass.doc	
ASSET (Subject Area)	*Information about the items, objects, and property used to support the activities required to keep the Department and Bureaus functioning.*
• **Land** (Information Class)	*The earth's surface, extending downward to the center of the earth and upward into space.*
GEOSPATIAL & GEOGRAPHY (Subject Area)	*Information about data that includes a terrestrial coordinate system or geographic reference. This includes geospatial data sets, mapping, imagery, coverage's, elevations, and features.*
• **Location** (Information Class)	*Information about an identifiable place of existence. A geographic or spatial identification assigned to a region or feature based on a specific coordinate system, or by other precise information such as a street address, a postal address, a descriptive location, a legal land definition, etc. Location data types primarily consist of Vector data.*
PLANNING & RESOURCE ALLOCATION (Subject Area)	*Information about activities, products, and services related to determining strategic direction, identifying and establishing programs and processes, and allocating resources (capital and labor) among those programs and processes.*
• (Information Class)	*All information classes for Planning & Resource Allocation are included in this data standard.*

Appendix B – Location

Data Model that provides information on standard attributes for any type of location (either a description or a geospatial reference) and feature level metadata. It is **not part of this data standard** and does not need to be reviewed for the data standard, merely provides more information and relationships.



Legend: PK (Primary Key) – uniquely identifies one occurrence (row) of the entity; FK (Foreign Key): is all or part of the PK of another entity it is related to. PK1, PK2 – indicates the PK is made of more than 1 attribute to make it unique. The Word Identifier indicates that this will be a designed key, its format is not known, but the modeling tool required a format and size. The actual content and size of the identifier will be determined during design

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key *	Definition
BOUNDARY							DRAFT ENTITY
	The edge of a location that demarks the change from one location to another location.						
		LOCATION IDENTIFIER	integer		Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
CONVERTED COORDINATE SYSTEM REFERENCE							DRAFT ENTITY
	The domain of values for the algorithm used to convert from one coordinate system to another.						
		COORDINATE SYSTEM CONVERSION ALGORITHM TEXT	character	60	Yes		The text that contains the algorithm used to convert from one coordinate system to another.
		COORDINATE SYSTEM ACRONYM CODE	character	10	Yes	PK, FK	The code that is considered the acronym for the coordinate system type.
		CONVERTED COORDINATE SYSTEM FROM ACRONYM CODE	character	10	Yes	PK	The code for the coordinate system that is being converted from (to another coordinate system).
COORDINATE SYSTEM DIMENSION REFERENCE							DRAFT ENTITY
	The dimensions that are part of given coordinate system type.						
		COORDINATE SYSTEM DIMENSION TEXT	character	100	Yes		The text that further describes the dimension for a given coordinate system type.
		COORDINATE SYSTEM DIMENSION CODE	character	10	Yes	PK	The code that is used to designate a dimension for a coordinate system type.
		COORDINATE SYSTEM DIMENSION NAME	character	10	Yes		The name associated with a code that is used to designate a dimension for a coordinate system type.
		COORDINATE SYSTEM ACRONYM CODE	character	10	Yes	PK, FK	The code that is considered the acronym for the coordinate system type.
COORDINATE SYSTEM REFERENCE							DRAFT ENTITY
	A system for assigning an n-tuple of numbers or scalars to each point in an n-dimensional space.						
		COODINATE SYSTEM TYPE TEXT	character	100	Yes		The text that describes the particular coordinate system type.
		COORDINATE SYSTEM TYPE NAME	character	40	Yes		The name given to a particular coordinate system type.

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key *	Definition
		COORDINATE SYSTEM ACRONYM CODE	character	10	Yes	PK	The code that is considered the acronym for the coordinate system type.
		COORDINATE SYSTEM PURPOSE TEXT	character	100	Yes		The text that describes the purpose or purposes of a given coordinate system type.
DEFINING FEATURE DESCRIPTION*							APPROVED ENTITY: BLM
The values associated with second level of detail that can be used to define / create the location, based on the Defining Feature Type Name. There is not a finite set of values for this.							
		DEFINING FEATURE DESCRIPTION NAME	character	40	Opt		The name that identifies a more specific description of the feature from which the arcs are derived to create polygon boundaries. This information further describes the physical or mapping feature that makes up the polygon boundary.
		DEFINING FEATURE DESCRIPTION TEXT	character	200	Yes		The text that provides further details on the Defining Feature Description.
		DEFINING FEATURE DESCRIPTION IDENTIFIER	integer		Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
		DEFINING FEATURE TYPE NAME	character	30	Yes		The name that identifies the high-level category for the actual physical or mapping characteristics (features) from which the arcs are derived.
DEFINING FEATURE TYPE REFERENCE*							APPROVED ENTITY: BLM
A domain for the description of the characteristic (feature) constructed from a geographic feature that was used to create the location boundary.							
		DEFINING FEATURE TYPE NAME	character	30	Yes	PK	The name that identifies the high-level category for the actual physical or mapping characteristics (features) from which the arcs are derived.
DEPICTION TYPE REFERENCE*							APPROVED ENTITY: BLM
The domain of values for the way a location is depicted either in scale or resolution.							
		DEPICTION TYPE NAME	character	10	Yes	PK	The name that designates the detail with which the location is depicted, either in resolution or scale.
FORM DEFINING FEATURE*							APPROVED ENTITY: BLM
The defining features associated with a specific location form.							

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key *	Definition
		LOCATION FORM IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		DEFINING FEATURE DESCRIPTION IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
HISTORICAL LOCATION							DRAFT ENTITY
	The date and reason why a location's information has changed. Business Rule: this is for administrative changes, not necessarily for corrections to data.						
		LOCATION MODIFICATION REASON TEXT	character	200	Yes		The text which is the explanation for why data about a location has changed for administrative reasons.
		LOCATION MODIFIED DATE	date		Yes	PK	The date which is the calendar year, month, and day when the position of the Location was last modified.
		LOCATION IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
LINE FORM							DRAFT ENTITY
	A series of connected, co-ordinate points forming a simple linear feature. It is used to represent rivers, and roads, or to form the boundary of polygons. (GIS dictionary) Note: In our current physical environment this includes all types of straight and curved lines including ones that intersection.						
		LOCATION FORM IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		LINE FORM LENGTH MEASURE	decimal		Yes		The measure of the length of the line described in the Line Form UOM Type Name.
		LINE FORM UOM TYPE NAME	character	20	Yes		The domain value associated with the Unit of Measure used for the Line Form Length Measure.
		LINE FORM ACCURACY MEASURE	decimal		Yes		The measure that describes how close, in Line Form UOM Type Name the actual location is to the spatial depiction.
LOCATION							DRAFT ENTITY
	A defined place that requires a way to locate it by some means. Note: Entities linked to Location have the potential for a geospatial aspect.						
		LOCATION ARCHIVE DATE	date		Opt		The date which is the calendar year, month, and day when the position of the Location is considered no longer valid but has historical value.

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key *	Definition
		LOCATION EFFECTIVE DATE	date		Yes		The date which is the calendar year, month, and day when the position of the Location was produced.
		LOCATION IDENTIFIER	integer		Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
LOCATION FORM							DRAFT ENTITY
	The form in which the location is described such as the description, shape, or appearance of the location.						
		LOCATION FORM IDENTIFIER	integer		Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
		LOCATION IDENTIFIER	integer		Yes	FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		LOCATION FORM TYPE NAME	character	10	Yes	FK	The type of form in which the location is described or appears. point, line, polygon, tabular
		LOCATION FORM ORIGINATING FORM INDICATOR	character	3	Yes		The value that indicates if this is the way in which the location was first drawn/described. (yes, no)
LOCATION FORM SOURCE*							APPROVED ENTITY: BLM
	The actual origin of the location sources that were used to create a specific location form.						
		LOCATION FORM IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		LOCATION SOURCE DESCRIPTION IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
LOCATION FORM TYPE REFERENCE							DRAFT ENTITY
	The domain for the type of form in which the location is described or appears whether in words, numbers of features (point line, polygon). This has been called feature in geospatial communities.						
		LOCATION FORM TYPE NAME	character	10	Yes	PK	The type of form in which the location is described or appears. point, line, polygon, tabular
LOCATION SOURCE DESCRIPTION*							APPROVED ENTITY: BLM
	The values that provide a second level of detail about the location (coordinate) source origin. Note: there is not a finite set of these values.						
		LOCATION SOURCE DESCRIPTION CREATION DATE	date		Yes		The date on which the location source was originally created. This could just be a year (ccyy).

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key *	Definition
		LOCATION SOURCE DESCRIPTION STORED LOCATION TEXT	character	100	Yes		The text that provides the additional description of where the coordinate source can be found
		LOCATION SOURCE DESCRIPTION DEPICTION TEXT	character	20	Yes		The text that describes the actual resolution or scale in which the location is depicted. Examples for Resolution: 1 meter, 10 feet. Examples for Scale: 1 in 10,000, 1 in 100. This does not have a domain or list of valid values.
		DEPICTION TYPE NAME	character	10	Yes	FK	The name that designates the detail with which the location is depicted, either in resolution or scale.
		LOCATION SOURCE DESCRIPTION IDENTIFIER	integer		Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
		LOCATION SOURCE DESCRIPTION TEXT	character	200	Yes		The text that provides further details on the Location (coordinate) Source Description.
		LOCATION SOURCE DESCRIPTION SPECIFIC NAME	character	40	Opt		The name that identifies a more specific description of the location (coordinate source).
		LOCATION SOURCE TYPE NAME	character	40	Yes	FK	The name that identifies the general category for the origin of the location coordinate, representing a compilation of the state adopted source codes. The domain contains those values that would most likely be used in the determination of source codes for the data set.
LOCATION SOURCE TYPE REFERENCE*							APPROVED ENTITY: BLM
The domain for the types of sources for the original location description / form.							
		LOCATION SOURCE TYPE NAME	character	40	Yes	PK	The name that identifies the general category for the origin of the location coordinate, representing a compilation of the state adopted source codes. The domain contains those values that would most likely be used in the determination of source codes for the data set.
		LOCATION SOURCE TYPE TEXT	character	100	Yes		The text that describes the Location Source Type.
POINT FORM							DRAFT ENTITY

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key *	Definition
A zero-dimensional abstraction of an object, with its location specified by a set of coordinates. (GIS dictionary)							
		LOCATION FORM IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		POINT FORM ACCURACY MEASURE	decimal		Yes		The measure that describes how close the spatial depiction of the point is to the actual location.
		POINT FORM UOM TYPE NAME	character	20	Yes		The name of the domain value associated with the Unit of Measure used for the Point Form Accuracy Measure.
POINT FORM DIMENSION							DRAFT ENTITY
The measure associated with each dimension of a Coordinate System.							
		PONT FORM DIMENSION MEASURE	decimal		Yes		The measure that is associated with a specific coordinate system dimension.
		LOCATION FORM IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		COORDINATE SYSTEM DIMENSION CODE	character	10	Yes	PK, FK	The code that is used to designate a dimension for a coordinate system type.
		COORDINATE SYSTEM ACRONYM CODE	character	10	Yes	PK, FK	The code that is considered the acronym for the coordinate system type.
POLYGON FORM							DRAFT ENTITY
An area bounded by a closed line. It is used to describe spatial elements, such as administrative and political boundaries and areas of homogeneous land use and soil types. (GIS dictionary). Note: In our physical environment, this includes all types of polygons, including ones that overlap.							
		LOCATION FORM IDENTIFIER	integer		Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity.
		POLYGON FORM UOM TYPE NAME	character	20	Yes		The name of the domain value associated with the Unit of Measure used for the Polygon Form Length Measure.
		POLYGON FORM AREA MEASURE	decimal		Yes		The area of the polygon described in the Polygon Form UOM Type Name.
RELATED LOCATION							DRAFT ENTITY
A valid relationship between two LOCATIONs for a specific reason.							

Entity Name	Entity Description	Logical Data Element Name	Type	Size	Required?	Key *	Definition
		RELATED LOCATION IDENTIFIER	integer		Yes	PK	The designed primary key that will uniquely identify a single occurrence of the entity. The first location that has a relationship with another location.
		RELATED LOCATION REASON NAME	character	40	Yes		The name that indicates the reason why two locations are related. Possible values: multi-part polygon, polygon lines, overlapping polygons.
		RELATED LOCATION REASON DATE	date		Yes	PK	The date when two locations became related for the reason stated.
		LOCATION IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
TABULAR FORM							DRAFT ENTITY
	Descriptive information about a location, usually alphanumeric. This can be a single name or a combination of attributes that make up an address.						
		LOCATION FORM IDENTIFIER	integer		Yes	PK, FK	The designed primary key that will uniquely identify a single occurrence of the entity.
		TABULAR FORM TYPE NAME	character	20	Yes	FK	The name of the sub-category of the location form type which is true for tabular or alphanumeric descriptions of a location.
TABULAR FORM TYPE REFERENCE							DRAFT ENTITY
	The domain for the type of tabular form that is being used to describe the location.						
		TABULAR FORM TYPE NAME	character	20	Yes	PK	The name of the sub-category of the location form type which is true for tabular or alphanumeric descriptions of a location.

***Key** **(PK: Primary Key) (FK: Foreign Key which is PK of related entity) (PK, FK: Foreign Key part of PK)**

Appendix C – Planning Area Boundary Business Rules Matrix

The following matrix provides information on Planning Area feature classes for existing polygons and historical polygons. ePlanning creates new Plan Ids for any new or amended LUPs. These identifiers are not the same as the unique identifier for the Planning Area Boundaries (LUPA_ID). The LUPA_ID is what uniquely identifies a planning area boundary. If a planning area boundary changes, for any reason, a new LUPA_ID will be created in the LUPA_EXIST_POLY feature class and the old one will be moved to the historical feature class. ePlanning will need to link the LUPA_ID to the appropriate Plan Id in ePlanning.

Situation	**LUPA_EXIST_POLY**		**LUPA_HIST_POLY**			**ePlanning** (LUPA_ID is data element attached to a Plan in ePlanning)
	LUPA_ID	**ROD DATE**	**LUPA_ID**	**LUP INACTIVE_ DT**	**BNDY_INACTIVE DATE**	
New Land Use Plan replaces Old Land Plan	New Polygon with new LUPA_ID	ROD Date from new LUP	Existing LUPA_ID	New LUP ROD Date	Blank	ePlanning links LUPA_ID to Plan ID
New LUP (X) replaces part of another LUP (Y)	X gets new polygon with new LUPA_ID	X gets New ROD Date	Existing LUPA_ID	New LUP X ROD Dt	Blank	ePlanning links LUP X PLAN ID to its new LUPA_ID
	Y gets new polygon with new LUPA_ID	Y keeps its ROD for remaining area	Existing LUPA_ID	Blank	Use LUP X New ROD Dt	ePlanning links LUP Y PLAN ID to its new LUPA_ID
LUP is amended*, boundary not changed	No change	New ROD Date	No record			ePLanning links amendment PLAN_ID to existing LUPA_ID
LUP is amended*, boundary changes	New Polygon with new LUPA_ID	New ROD Date	Existing LUPA_ID	New LUP ROD Date	Blank	ePLanning links LUP amendment PLAN_ID to new LUPA_ID
Maintenance (correction) to LUP changes boundary	New Polygon with new LUPA_ID	Existing ROD Date	Existing LUPA_ID	Blank	Maintenance date	ePlanning replaces LUPA_ID in existing Plan

* Revisions will be handled the same as amendments.