<?xml version="1.0" encoding="UTF-8"?>  
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified"  
 targetNamespace="http://www.usaha.org/xmlns/ecvi2" version="2.0"  
 xmlns="http://www.usaha.org/xmlns/ecvi2">  
  
 <xs:annotation>  
 <xs:documentation> Change Log 08/30/2017: Initial draft of version 2.0 attempts to clone  
 version 1 (labeled version 6.0?) with only minor tweaks. 09/01/2017: Added regular  
 expressions to AnimalTags choices 09/01/2017: Added option for ID/IDREF to Attachment  
 for BrandImage ID Type 11/16/2017: Collapsed animal tag choices into known structure and  
 not. 12/14/2017: Added Equine description and photos as AnimalTag choices. 01/16/2018:  
 Removed string length restrictions not part of regular expressions. 01/16/2018: Spelled  
 out latitude and longitude in geo point. 01/16/2018: Rearranged TagType to put Type as  
 first attribute. 02/08/2018: Restructured Species to SpeciesCode vs. SpeciesOther.  
 02/08/2018: Restructured All Binary data into ID/IDREF to eliminate duplication  
 02/28/2018: Converted comments to annotation elements except where simply labeling code  
 sections, etc. Works with an XSLT to generate skeleton documentation. 03/06-08/2018:  
 Additional annotations added. Ongoing. 04/04/2018: Added Carrier and Transport mode  
 optional elements. Added email in addition to Phone on person. Added miscellaneous  
 attributes element. Changed Breed element to basic string. 04/25/2018: Fixed apostrophe  
 character in Johne's Disease enumeration value. 05/20/2018: Added CVINumberIssuedBy as  
 optional attribute. 05/29/2018: Converted GeoPoint from attributes for Latitude and  
 Longitude to single coordinates element in KML format.</xs:documentation>  
 </xs:annotation>  
 <xs:annotation>  
 <xs:documentation>Copyright © 2017 AAVLD/USAHA it is free for use. Submit suggested changes  
 to the maintainers at https://github.com/AAVLD-USAHA-ITStandards/eCVI  
 </xs:documentation>  
 </xs:annotation>  
  
 <xs:element name="eCVI">  
 <xs:annotation>  
 <xs:documentation> The eCVI contains the following high-level elements (defined  
 separately): Exactly one Veterinarian (see Veterinarian) is required. Exactly one  
 MovementPurposes is required (see MovementPurposes, which may actually identify zero  
 or more purposes). Exactly one Origin (see PremType) is required. Exactly one  
 Destination (see PremType) is required. Exactly one Consignor (see ContactType) is  
 optional only if unavailable. Excatly one Consignee (see ContactType) is optional  
 only if unavailable. Exactly one Accessions is optional only if unavailable (see  
 Accessions, which may actually identify zero or more AccessionTypes). One or more  
 Animals (see Animal) are optional only if unavailable. One or more GroupLots (see  
 GroupLot) are optional. One or more Attachments (see Attachment) are optional. One  
 or more Binaries (see Binary) are optional. CviNumber is a required string.  
 IssueDate is a required date. ExpirationDate is a required date. ShipmentDate is an  
 optional date. EntryPermitNumber is an optional string. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element ref="Veterinarian" minOccurs="1" maxOccurs="1"/>  
 <xs:element ref="MovementPurposes" minOccurs="1" maxOccurs="1"/>  
 <xs:element ref="Origin" minOccurs="1" maxOccurs="1"/>  
 <xs:element ref="Destination" minOccurs="1" maxOccurs="1"/>  
 <xs:element ref="Consignor" minOccurs="0" maxOccurs="1"/>  
 <xs:element ref="Consignee" minOccurs="0" maxOccurs="1"/>  
 <xs:element ref="Carrier" minOccurs="0" maxOccurs="1"/>  
 <xs:element ref="TransportMode" minOccurs="0" maxOccurs="1"/>  
 <xs:element ref="Accessions" minOccurs="0" maxOccurs="1"/>  
 <xs:element ref="Animal" minOccurs="0" maxOccurs="unbounded"/>  
 <xs:element ref="GroupLot" minOccurs="0" maxOccurs="unbounded"/>  
 <xs:element ref="Statements" minOccurs="0" maxOccurs="1"/>  
 <xs:element ref="Attachment" minOccurs="0" maxOccurs="unbounded"/>  
 <xs:element ref="MiscAttribute" minOccurs="0" maxOccurs="unbounded"/>  
 <xs:element ref="Binary" minOccurs="0" maxOccurs="unbounded"/>  
 </xs:sequence>  
 <xs:attribute name="CviNumber" type="xs:string" use="required"/>  
 <xs:attribute name="CviNumberIssuedBy" type="xs:string" use="optional"/>  
 <xs:attribute name="IssueDate" type="xs:date" use="required"/>  
 <xs:attribute name="ExpirationDate" type="xs:date" use="required"/>  
 <xs:attribute name="ShipmentDate" type="xs:date" use="optional"/>  
 <xs:attribute name="EntryPermitNumber" type="xs:string" use="optional"/>  
 </xs:complexType>  
 </xs:element>  
 <!-- END Document Element -->  
  
 <!-- BEGIN Top Level Elements -->  
 <xs:element name="Veterinarian">  
 <xs:annotation>  
 <xs:documentation> Within the Veterinarian element: Name (see Person) is required.  
 Address (see AddressType) is optional only if unavailable. License State is an  
 optional string, and must be a (two upper case letter?) US state reflecting the  
 state where the license was issued License Number is an optional string. National  
 Accreditation Number is an optional string. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element ref="Person" minOccurs="1" maxOccurs="1"/>  
 <xs:element ref="AddressBlock" minOccurs="0" maxOccurs="1"/>  
 </xs:sequence>  
 <xs:attribute name="LicenseState" type="xs:string" use="optional"/>  
 <xs:attribute name="LicenseNumber" type="xs:string" use="optional"/>  
 <xs:attribute name="NationalAccreditationNumber" type="xs:string" use="optional"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="MovementPurposes">  
 <xs:annotation>  
 <xs:documentation> Movement Purpose is optional, and there is no limit on additional  
 Movement Purposes. Movement Purpose is a bit of a misnomer. It includes mostly  
 animal purpose at destination with a little bit of true reason for movement or  
 reason for certificate. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="MovementPurpose" minOccurs="0" maxOccurs="unbounded">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="show"/>  
 <xs:enumeration value="race"/>  
 <xs:enumeration value="rodeo"/>  
 <xs:enumeration value="sale"/>  
 <xs:enumeration value="pet"/>  
 <xs:enumeration value="breeding"/>  
 <xs:enumeration value="feeding"/>  
 <xs:enumeration value="grazing"/>  
 <xs:enumeration value="training"/>  
 <xs:enumeration value="slaughter"/>  
 <xs:enumeration value="medicalTreatment"/>  
 <xs:enumeration value="other"/>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:element>  
 </xs:sequence>  
 </xs:complexType>  
 </xs:element>  
  
 <!-- These are defined here as elements simply to make it easier to navigate   
 via Element list in some editors -->  
 <xs:element name="Origin" type="PremType">  
 <xs:annotation>  
 <xs:documentation>The physical location of the animal(s) prior to movement is required.  
 Must be a physical (911) address.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="Destination" type="PremType">  
 <xs:annotation>  
 <xs:documentation>The intended physical location of the animal(s) after movement is  
 required. Must be a physical (911) address.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="Consignor" type="ContactType">  
 <xs:annotation>  
 <xs:documentation>The contact information for the person or business responsible for the  
 animal(s) prior to movement. Only required if different from  
 Origin.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="Consignee" type="ContactType">  
 <xs:annotation>  
 <xs:documentation>The contact information for the person or business responsible for the  
 animal(s) after to movement. Only required if different from  
 Destination.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="Carrier" type="ContactType">  
 <xs:annotation>  
 <xs:documentation>The contact information for the person or business responsible for  
 moving the animals from origin to destination. </xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="TransportMode">  
 <xs:annotation>  
 <xs:documentation>If important for certification of ability to travel the mode, air,  
 car, rail, truck or boat (ship). </xs:documentation>  
 </xs:annotation>  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="air"/>  
 <xs:enumeration value="boat"/>  
 <xs:enumeration value="car"/>  
 <xs:enumeration value="rail"/>  
 <xs:enumeration value="truck"/>  
 <xs:enumeration value="land"/>  
 <xs:enumeration value="other"/>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:element>  
  
 <!-- Do these list wrappers add value? -->  
 <xs:element name="Accessions">  
 <xs:annotation>  
 <xs:documentation>Because many herd movements have testing performed in one accession,  
 the accession(s) is(are) listed here and referenced by each test rather than \  
 duplicating all the accession information for each test on each  
 animal.</xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element ref="Accession" minOccurs="0" maxOccurs="unbounded"/>  
 </xs:sequence>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="Animal">  
 <xs:annotation>  
 <xs:documentation> Animal species may be designated by code (see SpeciesCodeType) or  
 other (see SpeciesOther Type). A single animal tag (see AnimalTags) is required.  
 Test (see TestType) is optional, and there is no limit on additional Tests. Age is  
 optional and may be specified as either: a number of days, weeks, months or years  
 plus the standard code for units (d|wk|mo|a) (example: 3wk), age definitions adhere  
 to UCUM - http://unitsofmeasure.org/ucum.html), or as a specific date of birth as a  
 four-digit year, two-digit month, and two-digit date, separated by dashes (example:  
 2001-05-31). Breed is optional and specified by a two or three uppercase letter code  
 or by a string description such as "black". The code list is not specified in the  
 standard but most are available at: https://www.naab-css.org/uniform-breed-codes,  
 and  
 https://www.aphis.usda.gov/animal\_health/vs\_ocio/downloads/date\_standards/icvi\_data\_concepts.pdf.  
 Sex (see SexType) is optional. SexDetail is an optional string. InspectionDate is a  
 required date, and is the date the animals were inspected by the vet. If the  
 inspection took place over multiple days, use the first date. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:choice>  
 <xs:element ref="SpeciesCode"/>  
 <xs:element ref="SpeciesOther"/>  
 </xs:choice>  
 <xs:element ref="AnimalTags" minOccurs="1" maxOccurs="1"/>  
 <xs:element ref="Test" minOccurs="0" maxOccurs="unbounded"/>  
 <xs:element ref="Vaccination" minOccurs="0" maxOccurs="unbounded"/>  
 </xs:sequence>  
 <xs:attribute name="Age" type="AgeType" use="optional"/>  
 <xs:attribute name="Breed" type="xs:string" use="optional"/>  
 <xs:attribute name="Sex" type="SexType" use="optional"/>  
 <xs:attribute name="SexDetail" type="xs:string" use="optional"/>  
 <xs:attribute name="InspectionDate" type="xs:date" use="required"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="GroupLot">  
 <xs:annotation>  
 <xs:documentation> Species may be designated by code (see SpeciesCodeType) or other (see  
 SpeciesOtherType). Quantity is a required number (decimals acceptable). Unit by  
 default is "Number", as in a count. A different unit can be specified as an optional  
 string (guidelines on standardized units?). Age is optional and may be specified as  
 either: a number of days, weeks, months or years plus the standard code for units  
 (d|wk|mo|a) (example: 3wk), age definitions adhere to UCUM -  
 http://unitsofmeasure.org/ucum.html), or as a specific date of birth as a four-digit  
 year, two-digit month, and two-digit date, separated by dashes (example:  
 2001-05-31). Breed is optional and specified by two or three uppercase letters. The  
 list is not specified in the standard but most are available at:  
 https://www.naab-css.org/uniform-breed-codes, and  
 https://www.aphis.usda.gov/animal\_health/vs\_ocio/downloads/date\_standards/icvi\_data\_concepts.pdf.  
 Sex (see SexType) is optional. SexDetail is an optional string. Description is  
 required (provide more specifics on what should go in here since it is required).  
 </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:choice>  
 <xs:element ref="SpeciesCode"/>  
 <xs:element ref="SpeciesOther"/>  
 </xs:choice>  
 <xs:element ref="Test" minOccurs="0" maxOccurs="unbounded"/>  
 <xs:element ref="Vaccination" minOccurs="0" maxOccurs="unbounded"/>  
 </xs:sequence>  
 <xs:attribute name="Quantity" type="xs:float" use="required"/>  
 <xs:attribute name="Unit" type="xs:string" use="optional" default="Number"/>  
 <xs:attribute name="Age" type="AgeType" use="optional"/>  
 <xs:attribute name="Breed" type="xs:string" use="optional"/>  
 <xs:attribute name="Sex" type="SexType" use="optional"/>  
 <xs:attribute name="SexDetail" type="xs:string" use="optional"/>  
 <xs:attribute name="Description" type="xs:string" use="required"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="Statements" type="xs:string">  
 <xs:annotation>  
 <xs:documentation> Additional statements that may be required by various jurisdictions  
 may be included here. These statements must not take the place of or modify the  
 structured content found elsewhere in the standard.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
  
 <xs:element name="Attachment">  
 <xs:annotation>  
 <xs:documentation> Attachments can be used for text or binary additional information not  
 specifically carried in one of the other Binary elements. Assumed to be from a file  
 so Filename is required along with a reference to the Binary content. Be aware that  
 receiving applications may ignore unknown or unexpected attachments. The actual  
 binary content of the attachment is carried in the Binary element as are any other  
 Binary fields. DocType is a required string. (put enumeration values in table  
 somehow? Is this list adequate?). Filename is a required string. (Why require a file  
 name? many may never have actually resided in a named file.) Comment is an optional  
 string. (For what purpose?)</xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="AttachmentRef" type="xs:IDREF" use="required"/>  
 <xs:attribute name="DocType" use="required">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="Scanned Paper CVI">  
 <xs:annotation>  
 <xs:documentation>For sending an image of original paper CVI along  
 with the extracted data. These may be image PDF or other image  
 format. </xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Scanned Test Chart">  
 <xs:annotation>  
 <xs:documentation>For sending scanned test charts along with  
 electronic CVI or extracted data. These may be image PDF or  
 other image format. </xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="PDF CVI">  
 <xs:annotation>  
 <xs:documentation>For sending data form PDF CVI along with extracted  
 data. These would be Adobe PDF forms, or XFA forms.  
 </xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="PDF Test Chart">  
 <xs:annotation>  
 <xs:documentation>For sending data form PDF Test Chart along with  
 electronic CVI or extracted data. These would be Adobe PDF  
 forms, or XFA forms. </xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Other">  
 <xs:annotation>  
 <xs:documentation>All other uses.</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:attribute>  
 <xs:attribute name="Filename" type="xs:string" use="required"/>  
 <xs:attribute name="Comment" type="xs:string" use="optional"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="Binary">  
 <xs:annotation>  
 <xs:documentation>All binary content is included as Binary and referenced in specific  
 elements by ID/IDREF.</xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="Payload" type="xs:base64Binary" minOccurs="1" maxOccurs="1"/>  
 </xs:sequence>  
 <xs:attribute name="ID" type="xs:ID"/>  
 <xs:attribute name="MimeType" type="MimeType" use="optional"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="MiscAttribute">  
 <xs:annotation>  
 <xs:documentation>Any additional information needed by specific implementations can be  
 provided as name/value pairs represented as strings. These data must not be  
 essential to proper understanding of the structured content of the standard data but  
 only extend it.</xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="Name" type="xs:string" use="required"/>  
 <xs:attribute name="Value" type="xs:string" use="required"/>  
 </xs:complexType>  
 </xs:element>  
 <!-- END Top Level Elements -->  
  
  
 <!-- BEGIN Second Level Element Definitions -->  
 <xs:element name="Person">  
 <xs:annotation>  
 <xs:documentation> Person is defined as a Name string and an optional Phone Number (see  
 Phone). </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:choice>  
 <xs:element ref="NameParts" minOccurs="1" maxOccurs="1"/>  
 <xs:element name="Name" type="xs:string" minOccurs="1" maxOccurs="1"/>  
 </xs:choice>  
 <xs:element ref="Phone" minOccurs="0" maxOccurs="unbounded"/>  
 <xs:element ref="Email" minOccurs="0" maxOccurs="unbounded"/>  
 </xs:sequence>  
 </xs:complexType>  
 </xs:element>  
   
 <xs:element name="NameParts">  
 <xs:annotation>  
 <xs:documentation> NameType defines a structured name for a business or person.  
 BusinessName, FirstName, Middle Name, LastName, OtherName are all optional for  
 applications to use one or more (zero would validate, but why?) </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="BusinessName" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="FirstName" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="MiddleName" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="LastName" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="OtherName" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 </xs:sequence>  
 </xs:complexType>  
 </xs:element>  
   
 <xs:element name="Phone">  
 <xs:annotation>  
 <xs:documentation> The Phone Number specifies type (list enumeration values?) and a  
 ten-digit number, and can include a comment. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="Number" use="required">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:pattern value="\d{10}"/>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:attribute>  
 <xs:attribute name="Comment" type="xs:string" use="optional"/>  
 <xs:attribute name="Type" use="required">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="Unknown">  
 <xs:annotation>  
 <xs:documentation>Probably the most common.</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Landline">  
 <xs:annotation>  
 <xs:documentation>If known to be fixed location.</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Cellphone">  
 <xs:annotation>  
 <xs:documentation>If known to be a mobile phone.</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Fax">  
 <xs:annotation>  
 <xs:documentation>Fax line.</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:attribute>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="Email">  
 <xs:complexType>  
 <xs:attribute name="Address" type="EmailType" use="required"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="Accession">  
 <xs:annotation>  
 <xs:documentation> Accessions are listed for the CVI as a whole and referenced by each  
 test. An accession is defined as... A single Laboratory or Field element may be  
 specified, indicating where tests for this accession were performed. InfieldTest is  
 an optional bool (true/false value) indicating if a test was performed in the field.  
 (Is this redundant with the Field element?) ID (see ID) is required, and is the  
 reference number that associates an animal’s test details derived from this  
 accession (not clear, reword if possible), not the lab accession number. For  
 Laboratory accessions: Laboratory is a required, containing the following: LabName  
 is a required string. PremId (see PremIdType) is optional only if unavailable.  
 Address (see AddressType) is optional only if unavailable and should contain the lab  
 (physical? contact?) address. AccessionDate is a required date. AccessionNumber is a  
 required string. For Field accessions: PremId (see PremIdType) is optional only if  
 unavailable. Address (see AddressType) is optional only if unavailable and should  
 contain the (physical? contact?) address of the test location. AccessionDate is a  
 required date. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:choice>  
 <xs:element name="Laboratory" minOccurs="1" maxOccurs="1">  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="LabName" type="xs:string" minOccurs="1"  
 maxOccurs="1"/>  
 <xs:element name="PremId" type="PremIdType" minOccurs="0"  
 maxOccurs="1"/>  
 <xs:element ref="AddressBlock" minOccurs="0" maxOccurs="1"/>  
 </xs:sequence>  
 <xs:attribute name="AccessionDate" type="xs:date" use="required"/>  
 <xs:attribute name="AccessionNumber" type="xs:string" use="required"/>  
 </xs:complexType>  
 </xs:element>  
 <xs:element name="Field" minOccurs="1" maxOccurs="1">  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="PremId" type="PremIdType" minOccurs="0"  
 maxOccurs="1"/>  
 <xs:element ref="AddressBlock" minOccurs="0" maxOccurs="1"/>  
 </xs:sequence>  
 <xs:attribute name="AccessionDate" type="xs:date" use="required"/>  
 </xs:complexType>  
 </xs:element>  
 </xs:choice>  
 </xs:sequence>  
 <xs:attribute name="InfieldTest" type="xs:boolean" use="optional" default="false"/>  
 <xs:attribute name="id" type="xs:ID" use="required"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="ProgramStatus">  
 <xs:annotation>  
 <xs:documentation>Program status consists of the name of the program and a value  
 representing the herd or state (area) status claimed. The enumerated lists need to  
 be examined. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="Name" use="required">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="Bovine Tuberculosis">  
 <xs:annotation>  
 <xs:documentation>Bovine TB program status</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Brucellosis (state)">  
 <xs:annotation>  
 <xs:documentation>Brucellosis program state  
 status</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Brucellosis (herd)">  
 <xs:annotation>  
 <xs:documentation>Brucellosis program herd status</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Johne's (herd)">  
 <xs:annotation>  
 <xs:documentation>Johne's disease program herd  
 status</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NPIP (herd)">  
 <xs:annotation>  
 <xs:documentation>NPIP program flock status. (Which program? NPIP  
 has several.\_</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Scrapie (herd)">  
 <xs:annotation>  
 <xs:documentation>Scrapie program flock status.</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Trichomoniasis (herd)">  
 <xs:annotation>  
 <xs:documentation>Trichomoniasis program herd  
 status</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="EIA (herd)">  
 <xs:annotation>  
 <xs:documentation>EIA herd status?</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:attribute>  
 <xs:attribute name="Value" use="required">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="Free">  
 <xs:annotation>  
 <xs:documentation>Free status for the named disease  
 program.</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Modified Accredited">  
 <xs:annotation>  
 <xs:documentation>Modified accredited status in TB  
 program.</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Modified Advanced Accredited">  
 <xs:annotation>  
 <xs:documentation>Modified accredited status in TB  
 program</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Designated Surveillance Area">  
 <xs:annotation>  
 <xs:documentation>Area surrounding known wildlife  
 reservoir</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="Other">  
 <xs:annotation>  
 <xs:documentation>All other statuses for other  
 programs.</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:attribute>  
 <xs:attribute name="ValueOther" type="xs:string" use="optional">  
 <xs:annotation>  
 <xs:documentation>For other status types the value such as Brucellosis stage,  
 NPIP clean, may opionally be included in this attribute.</xs:documentation>  
 </xs:annotation>  
 </xs:attribute>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="Address">  
 <xs:annotation>  
 <xs:documentation>Origin and destination require a structured address. Because of  
 variation in policy between jurisdictions this schema leaves each element optional.  
 However for a CVI to be valid in any jurisdiction, this element must contain enough  
 information for autorities to uniquely identify the location. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="Line1" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="Line2" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="Town" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="County" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="State" type="StateCodeType" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="ZIP" minOccurs="0" maxOccurs="1">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:pattern value="\d{5}"/>  
 <xs:pattern value="\d{5}-\d{4}"/>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:element>  
 <xs:element name="Country" minOccurs="0" maxOccurs="1">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="USA"/>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:element>  
 <xs:element name="coordinates" minOccurs="0" maxOccurs="1">  
 <xs:annotation>  
 <xs:documentation>Longitude, Latitude, and Altitude (optional) formatted as  
 KML &lt;coordinates&gt; element Longitude (decimal degrees), Latitude  
 (decimal degrees) ,Altitude (meters) Example "-122.08220,37.42229,0"  
 </xs:documentation>  
 </xs:annotation>  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:pattern value="\-?[0-9]{1,3}.[0-9]+,\-?[0-9]{1,3}.[0-9]+(,[0-9]+)?"  
 />  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:element>  
 </xs:sequence>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="AddressBlock">  
 <xs:annotation>  
 <xs:documentation>Contacts such as "consignor, if different", "consignee, if different",  
 veterinarian, and carrier may have simple block of text containing more or less  
 structured address. </xs:documentation>  
 </xs:annotation>  
 <xs:simpleType>  
 <xs:restriction base="xs:string"/>  
 </xs:simpleType>  
 </xs:element>  
  
  
 <xs:element name="Test">  
 <xs:annotation>  
 <xs:documentation> Individual test results are included with each animal and reference  
 via ID/IDREF an accession. For herd testing this allows one accession with many  
 tests. For tests such as Equine Coggins tests that are one per accession it results  
 in slight extra overhead. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="Result" minOccurs="1" maxOccurs="unbounded">  
 <xs:complexType>  
 <xs:choice>  
 <xs:element name="ResultInteger" type="xs:integer" minOccurs="0"  
 maxOccurs="1"/>  
 <xs:element name="ResultString" type="xs:string" minOccurs="0"  
 maxOccurs="1"/>  
 <xs:element name="ResultFloat" type="xs:float" minOccurs="0"  
 maxOccurs="1"/>  
 </xs:choice>  
 <xs:attribute name="ResultName" use="required">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="RESULT"/>  
 <xs:enumeration value="COMMENT"/>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:attribute>  
 </xs:complexType>  
 </xs:element>  
 </xs:sequence>  
 <xs:attribute name="AccessionRef" type="xs:IDREF" use="required">  
 <xs:annotation>  
 <xs:documentation> Points to ID in Accession element </xs:documentation>  
 </xs:annotation>  
 </xs:attribute>  
 <xs:attribute name="TestCode" type="xs:string" use="required"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="SpeciesCode">  
 <xs:annotation>  
 <xs:documentation> For animals with official species codes, the code is required with  
 optional text to add detail if necessary. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="Code" type="SpeciesCodes" use="required"/>  
 <xs:attribute name="Text" type="xs:string" use="optional"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="Vaccination">  
 <xs:annotation>  
 <xs:documentation>Vaccination information for animal or group. For now the type of  
 vaccine is left as a simple string. Ideally will become a coded value from a  
 standard set. The date is optional but highly suggested. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="Type" type="xs:string" use="required"/>  
 <xs:attribute name="Date" type="xs:date" use="optional"/>  
 </xs:complexType>  
  
 </xs:element>  
  
 <xs:element name="SpeciesOther">  
 <xs:annotation>  
 <xs:documentation> The species coded in the standard include only those commonly needed  
 for regulatory action related to the movement. Many other official species codes can  
 be found at http://???? Because not all systems may understand these other codes,  
 human readable Text is required in addition to the code. For animals without an  
 official species code, the code may be omitted the default value is OTH and text  
 used to define the actual taxonomy is required.</xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="Code" default="OTH" use="optional"/>  
 <xs:attribute name="Text" type="xs:string" use="required"/>  
 </xs:complexType>  
 </xs:element>  
  
 <xs:element name="AnimalTags">  
 <xs:annotation>  
 <xs:documentation> This is a jumble of type of ID with the type of device holding the  
 ID. "Tags" is a misnomer. An ID may be either Known Format matching one of the list  
 of regular expressions for common official animal IDs, or some other type, either  
 non-offial or one that this schema missed. This field also supports brand  
 descriptions, brand images, and equine description or photographs. These can appear  
 in any order up to six IDs per animal </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence minOccurs="1" maxOccurs="6">  
 <!-- Why the limit of six? -->  
 <xs:choice>  
 <xs:element name="KnownFormatID">  
 <xs:complexType>  
 <xs:attribute name="Type" type="TagType" use="optional"/>  
 <xs:attribute name="Number" use="required">  
 <xs:annotation>  
 <xs:documentation>KnownFormatID patterns provide some ID  
 validation.</xs:documentation>  
 </xs:annotation>  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <xs:pattern value="(840)\d{12}">  
 <xs:annotation>  
 <xs:documentation xml:lang="en">840 RFID: 840  
 followed by 12 digits</xs:documentation>  
 </xs:annotation>  
 </xs:pattern>  
 <xs:pattern value="(USA)(\d{8,9}|\d{12})">  
 <xs:annotation>  
 <xs:documentation> American ID: USA followed by 12  
 digits, sometimes truncated to 8 or 9 digits, or  
 some specific patterns of just the digits part  
 (shows how hard validation is currently)  
 </xs:documentation>  
 </xs:annotation>  
 </xs:pattern>  
 <xs:pattern value="[5-9]\d{7}"/>  
 <xs:pattern value="[1-3]\d{8}"/>  
 <xs:pattern value="4[0-6]\d{7}"/>  
 <xs:pattern value="470\d{6}"/>  
 <xs:pattern value="4710\d{5}"/>  
 <xs:pattern value="471100000"/>  
 <xs:pattern value="\d{2}[A-Z]{2}\d{4}.?">  
 <xs:annotation>  
 <xs:documentation> Cattle Backtag: Two digits + two  
 letters + four digits (optional additional  
 character?) </xs:documentation>  
 </xs:annotation>  
 </xs:pattern>  
 <xs:pattern  
 value="((840)|(9[0-8]\d)|(9\d[0-8])|(124)|(484))\d{12}">  
 <xs:annotation>  
 <xs:documentation> Implant RFID Chip: Either 840 or  
 a company prefix followed by 12 digits Excludes  
 999 prefix (Note, XPATH does not support  
 (?!pattern) negative look ahead.)  
 </xs:documentation>  
 </xs:annotation>  
 </xs:pattern>  
 <xs:pattern  
 value="((9[0-8]\d)|(9\d[0-8])|(124)|(484))\d{12}">  
 <xs:annotation>  
 <xs:documentation> Non 840 RFID: Company prefix (not  
 999) followed by 12 digits </xs:documentation>  
 </xs:annotation>  
 </xs:pattern>  
 <xs:pattern value="\d{2}[A-Z]{2}\d{4}">  
 <xs:annotation>  
 <xs:documentation> NUES 8 Character: Two digits +  
 two letters + four digits (Note: matches cattle  
 backtag pattern.) </xs:documentation>  
 </xs:annotation>  
 </xs:pattern>  
 <xs:pattern value="(\d{2}|MD|MN|NM|NY|US|WY)[A-Z]{3}\d{4}">  
 <xs:annotation>  
 <xs:documentation> NUES 9 Character: Two digits +  
 three letters + four digits or some state's alpha  
 codes followed by three more letters and four  
 digits </xs:documentation>  
 </xs:annotation>  
 </xs:pattern>  
 <xs:pattern value="[A-Z]{2}[A-Z0-9]{1,20}[ ][A-Z0-9]{1,20}">  
 <xs:annotation>  
 <xs:documentation> Sheep/goat - flock ID tag: Two  
 letters + one to 20 upper case letters or digits +  
 a space and one to 20 more upper case letters or  
 digits </xs:documentation>  
 </xs:annotation>  
 </xs:pattern>  
 <xs:pattern value="[A-Z0-9]{7}[ ][A-Z0-9]{1,20}">  
 <xs:annotation>  
 <xs:documentation> Sheep/goat National PIN tag:  
 Seven upper case letters or digts (a PIN) + a  
 space and one to 20 more upper case letters or  
 digits </xs:documentation>  
 </xs:annotation>  
 </xs:pattern>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:attribute>  
 </xs:complexType>  
 </xs:element>  
 <xs:element name="OtherFormatID">  
 <xs:annotation>  
 <xs:documentation> Other Formats: No restrictions </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="Type" type="TagType" use="optional"/>  
 <xs:attribute name="Number" use="required">  
 <xs:simpleType>  
 <xs:restriction base="xs:string">  
 <!-- This could just use xs:string but left for consistency -->  
 <xs:pattern value=".\*"/>  
 </xs:restriction>  
 </xs:simpleType>  
 </xs:attribute>  
 </xs:complexType>  
 </xs:element>  
 <xs:element name="BrandImage">  
 <xs:annotation>  
 <xs:documentation> This should be PNG/JPEG/GIF/PDF format. The format is  
 specified in the Binary mime type.</xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="BrandImageRef" type="xs:IDREF" use="required"/>  
 <xs:attribute name="Description" type="xs:string" use="optional"/>  
 </xs:complexType>  
 </xs:element>  
 <xs:element name="EquineDescription">  
 <xs:annotation>  
 <xs:documentation> Equine registered name is only legal identification  
 with description </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="Name" type="xs:string" use="optional"/>  
 <xs:attribute name="Description" type="xs:string" use="required"/>  
 </xs:complexType>  
 </xs:element>  
 <xs:element name="EquinePhotographs">  
 <xs:annotation>  
 <xs:documentation> Photos are also official. </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="Photograph" minOccurs="1" maxOccurs="3">  
 <xs:annotation>  
 <xs:documentation> Should we try to impose image type, etc.?  
 </xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:attribute name="ImageRef" type="xs:IDREF" use="required"/>  
 <xs:attribute name="View" type="PhotoView" use="optional"/>  
 </xs:complexType>  
 </xs:element>  
 </xs:sequence>  
 </xs:complexType>  
 </xs:element>  
 </xs:choice>  
 </xs:sequence>  
 </xs:complexType>  
 </xs:element>  
 <!-- END Second Level element definitions -->  
  
  
 <!-- BEGIN Complex Reused Types -->  
 <xs:complexType name="PremType">  
 <xs:annotation>  
 <xs:documentation> PremType is used for origin and destination, and must be actual  
 physical (animal?) locations. PremId (see PremIdType) is optional only if  
 unavailable. PremName is an optional string. Address is required (see AddressType).  
 ProgramStatus (see ProgramStatusType) is optional, but there is no limit on  
 additional ProgramStatuses. Person (see PersonType) is required (why?), and there is  
 no limit on additional Persons. </xs:documentation>  
 </xs:annotation>  
 <xs:sequence>  
 <xs:element name="PremId" type="PremIdType" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="PremName" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element ref="Address" minOccurs="1" maxOccurs="1"/>  
 <xs:element ref="ProgramStatus" minOccurs="0" maxOccurs="unbounded"/>  
 <xs:element ref="Person" minOccurs="0" maxOccurs="unbounded"/>  
 </xs:sequence>  
 </xs:complexType>  
  
 <xs:complexType name="ContactType">  
 <xs:annotation>  
 <xs:documentation> ContactType is used for consignor and consignee that may be actual  
 physical locations or other postal addresses. PremID (see PremIdType) is optional  
 only if unavailable. PremName is an optional string. Address (see AddressType) is  
 optional. Person (see PersonType) is required, and there is no limit on additional  
 Persons. </xs:documentation>  
 </xs:annotation>  
 <xs:sequence>  
 <xs:element name="PremId" type="PremIdType" minOccurs="0" maxOccurs="1"/>  
 <xs:element name="PremName" type="xs:string" minOccurs="0" maxOccurs="1"/>  
 <xs:element ref="AddressBlock" minOccurs="0" maxOccurs="1"/>  
 <xs:element ref="Person" minOccurs="1" maxOccurs="unbounded"/>  
 </xs:sequence>  
 </xs:complexType>  
 <!-- END Complex Reused Types -->  
  
 <!-- BEGIN Simple Enumerated or Patterned Types -->  
 <xs:simpleType name="EmailType">  
 <xs:annotation>  
 <xs:documentation>Optional email address following simplified standard email address  
 pattern.</xs:documentation>  
 </xs:annotation>  
 <xs:restriction base="xs:string">  
 <xs:pattern value="[a-zA-Z0-9.\_%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,4}"/>  
 </xs:restriction>  
 </xs:simpleType>  
  
  
 <xs:simpleType name="PremIdType">  
 <xs:annotation>  
 <xs:documentation> PremIdType does minimal validation of true premises identifiers  
 including both PINs (7 characters and LIDs (8 characters). Only nationally  
 registered LIDs are appropriate. Implementing applications are highly encouraged to  
 validate against the appropriate checksum logic. </xs:documentation>  
 </xs:annotation>  
 <xs:restriction base="xs:string">  
 <xs:pattern value="[A-Z0-9]{6,8}"/>  
 </xs:restriction>  
 </xs:simpleType>  
  
 <xs:simpleType name="AgeType">  
 <xs:restriction base="xs:string">  
 <xs:pattern value="(&lt;|&gt;)? ?\d{1,3} ?(d|wk|mo|a)"/>  
 <xs:pattern value="(19|20)\d\d-(0[1-9]|1[012])-(0[1-9]|[12]\d|3[01])"/>  
 </xs:restriction>  
 </xs:simpleType>  
  
 <xs:simpleType name="TagType">  
 <xs:annotation>  
 <xs:documentation> This lists the allowed tag types that are supported. The enumerated  
 patterns try to enforce this. </xs:documentation>  
 </xs:annotation>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="AIN">  
 <xs:annotation>  
 <xs:documentation>840 official animal ID</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="AMID">  
 <xs:annotation>  
 <xs:documentation>American ID</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="BRAND">  
 <xs:annotation>  
 <xs:documentation>Brand description</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="BT">  
 <xs:annotation>  
 <xs:documentation>Backtag</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="IMP">  
 <xs:annotation>  
 <xs:documentation/>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MGT">  
 <xs:annotation>  
 <xs:documentation>Management tag</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="N840RFID">  
 <xs:annotation>  
 <xs:documentation>Non 840 RFID tag</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NUES8">  
 <xs:annotation>  
 <xs:documentation>Eight digit national uniform eartag system</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NUES9">  
 <xs:annotation>  
 <xs:documentation>Nine digit national uniform eartag system</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="OFORID">  
 <xs:annotation>  
 <xs:documentation>What is this?</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NAME">  
 <xs:annotation>  
 <xs:documentation>Name?</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="SGFLID">  
 <xs:annotation>  
 <xs:documentation>Scrapie group flock ID</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NPIN">  
 <xs:annotation>  
 <xs:documentation>Swine PIN Tag</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="TAT">  
 <xs:annotation>  
 <xs:documentation>Tattoo</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 </xs:restriction>  
 </xs:simpleType>  
  
  
 <xs:simpleType name="SpeciesCodes">  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="AQU">  
 <xs:annotation>  
 <xs:documentation> Aquaculture</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="AVI">  
 <xs:annotation>  
 <xs:documentation> Avian</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="BEF">  
 <xs:annotation>  
 <xs:documentation> Beef</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="BIS">  
 <xs:annotation>  
 <xs:documentation> Bison</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="BOV">  
 <xs:annotation>  
 <xs:documentation> Bovine (Bison and Cattle)</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CAM">  
 <xs:annotation>  
 <xs:documentation> Camelid (Alpacas, Llamas, etc.)</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CAN">  
 <xs:annotation>  
 <xs:documentation> Canine</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CAP">  
 <xs:annotation>  
 <xs:documentation> Caprine (Goats)</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CER">  
 <xs:annotation>  
 <xs:documentation> Cervids</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CHI">  
 <xs:annotation>  
 <xs:documentation> Chickens</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CLM">  
 <xs:annotation>  
 <xs:documentation> Clams</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CRA">  
 <xs:annotation>  
 <xs:documentation> Crawfish</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CTF">  
 <xs:annotation>  
 <xs:documentation> Catfish</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="DAI">  
 <xs:annotation>  
 <xs:documentation> Dairy</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="DEE">  
 <xs:annotation>  
 <xs:documentation> Deer</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="DUC">  
 <xs:annotation>  
 <xs:documentation> Ducks</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="ELK">  
 <xs:annotation>  
 <xs:documentation> Elk</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="EQU">  
 <xs:annotation>  
 <xs:documentation> Equine (Horses, Mules, Donkeys, Burros)</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="FEL">  
 <xs:annotation>  
 <xs:documentation> Feline</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="GEE">  
 <xs:annotation>  
 <xs:documentation> Geese</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="GUI">  
 <xs:annotation>  
 <xs:documentation> Guineas</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MSL">  
 <xs:annotation>  
 <xs:documentation> Mussels</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="OVI">  
 <xs:annotation>  
 <xs:documentation> Ovine (Sheep)</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="OYS">  
 <xs:annotation>  
 <xs:documentation> Oysters</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="PGN">  
 <xs:annotation>  
 <xs:documentation> Pigeon</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="POR">  
 <xs:annotation>  
 <xs:documentation> Porcine (Swine)</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="QUA">  
 <xs:annotation>  
 <xs:documentation> Quail</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="RTT">  
 <xs:annotation>  
 <xs:documentation> Ratites (Emus, Ostriches, etc.)</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="SAL">  
 <xs:annotation>  
 <xs:documentation> Salmon</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="SBA">  
 <xs:annotation>  
 <xs:documentation> Striped Bass</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="SHR">  
 <xs:annotation>  
 <xs:documentation> Shrimp</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="SLP">  
 <xs:annotation>  
 <xs:documentation> Scallops</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="TIL">  
 <xs:annotation>  
 <xs:documentation> Tilapia</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="TRO">  
 <xs:annotation>  
 <xs:documentation> Trout</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="TUR">  
 <xs:annotation>  
 <xs:documentation> Turkeys</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 </xs:restriction>  
 </xs:simpleType>  
  
 <xs:simpleType name="SexType">  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="Female"/>  
 <xs:enumeration value="Male"/>  
 <xs:enumeration value="Gender Unknown"/>  
 <xs:enumeration value="Spayed Female"/>  
 <xs:enumeration value="Neutered Male"/>  
 <xs:enumeration value="True Hermaphrodite"/>  
 <xs:enumeration value="Other"/>  
 </xs:restriction>  
 </xs:simpleType>  
  
 <xs:simpleType name="StateCodeType">  
 <xs:annotation>  
 <xs:documentation>State Code includes territories, APO addresses, etc. Does NOT include  
 Canadian provinces or Mexican states.</xs:documentation>  
 </xs:annotation>  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="AA">  
 <xs:annotation>  
 <xs:documentation>Military postal system in the Americas</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="AE">  
 <xs:annotation>  
 <xs:documentation>Military postal system in Europe Africa and  
 Canada</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="AK">  
 <xs:annotation>  
 <xs:documentation>Alaska</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="AL">  
 <xs:annotation>  
 <xs:documentation>Alabama</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="AP">  
 <xs:annotation>  
 <xs:documentation>Military postal system in the Pacific</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="AR">  
 <xs:annotation>  
 <xs:documentation>Arkansas</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="AS">  
 <xs:annotation>  
 <xs:documentation>American Samoa</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="AZ">  
 <xs:annotation>  
 <xs:documentation>Arizona</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CA">  
 <xs:annotation>  
 <xs:documentation>California</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CO">  
 <xs:annotation>  
 <xs:documentation>Colorado</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="CT">  
 <xs:annotation>  
 <xs:documentation>Connecticut</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="DC">  
 <xs:annotation>  
 <xs:documentation>Washington District of Columbia</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="DE">  
 <xs:annotation>  
 <xs:documentation>Delaware</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="FL">  
 <xs:annotation>  
 <xs:documentation>Florida</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="FM">  
 <xs:annotation>  
 <xs:documentation>Federated States of Micronesia</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="GA">  
 <xs:annotation>  
 <xs:documentation>Georgia</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="GU">  
 <xs:annotation>  
 <xs:documentation>Guam</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="HI">  
 <xs:annotation>  
 <xs:documentation>Hawaii</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="IA">  
 <xs:annotation>  
 <xs:documentation>Iowa</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="ID">  
 <xs:annotation>  
 <xs:documentation>Idaho</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="IL">  
 <xs:annotation>  
 <xs:documentation>Illinois</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="IN">  
 <xs:annotation>  
 <xs:documentation>Indiana</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="KS">  
 <xs:annotation>  
 <xs:documentation>Kansas</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="KY">  
 <xs:annotation>  
 <xs:documentation>Kentucky</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="LA">  
 <xs:annotation>  
 <xs:documentation>Louisiana</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MA">  
 <xs:annotation>  
 <xs:documentation>Massachusetts</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MD">  
 <xs:annotation>  
 <xs:documentation>Maryland</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="ME">  
 <xs:annotation>  
 <xs:documentation>Maine</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MH">  
 <xs:annotation>  
 <xs:documentation>Marshall Islands</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MI">  
 <xs:annotation>  
 <xs:documentation>Michigan</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MN">  
 <xs:annotation>  
 <xs:documentation>Minnesota</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MO">  
 <xs:annotation>  
 <xs:documentation>Missouri</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MP">  
 <xs:annotation>  
 <xs:documentation>Northern Mariana Islands</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MS">  
 <xs:annotation>  
 <xs:documentation>Mississippi</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="MT">  
 <xs:annotation>  
 <xs:documentation>Montana</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NC">  
 <xs:annotation>  
 <xs:documentation>North Carolina</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="ND">  
 <xs:annotation>  
 <xs:documentation>North Dakota</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NE">  
 <xs:annotation>  
 <xs:documentation>Nebraska</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NH">  
 <xs:annotation>  
 <xs:documentation>New Hampshire</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NJ">  
 <xs:annotation>  
 <xs:documentation>New Jersey</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NM">  
 <xs:annotation>  
 <xs:documentation>New Mexico</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NV">  
 <xs:annotation>  
 <xs:documentation>Nevada</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="NY">  
 <xs:annotation>  
 <xs:documentation>New York</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="OH">  
 <xs:annotation>  
 <xs:documentation>Ohio</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="OK">  
 <xs:annotation>  
 <xs:documentation>Oklahoma</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="OR">  
 <xs:annotation>  
 <xs:documentation>Oregon</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="PA">  
 <xs:annotation>  
 <xs:documentation>Pennsylvania</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="PR">  
 <xs:annotation>  
 <xs:documentation>Puerto Rico</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="PW">  
 <xs:annotation>  
 <xs:documentation>Palau</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="RI">  
 <xs:annotation>  
 <xs:documentation>Rhode Island</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="SC">  
 <xs:annotation>  
 <xs:documentation>South Carolina</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="SD">  
 <xs:annotation>  
 <xs:documentation>South Dakota</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="TN">  
 <xs:annotation>  
 <xs:documentation>Tennessee</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="TX">  
 <xs:annotation>  
 <xs:documentation>Texas</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="UT">  
 <xs:annotation>  
 <xs:documentation>Utah</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="VA">  
 <xs:annotation>  
 <xs:documentation>Virginia</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="VI">  
 <xs:annotation>  
 <xs:documentation>U.S. Virgin Islands</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="VT">  
 <xs:annotation>  
 <xs:documentation>Vermont</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="WA">  
 <xs:annotation>  
 <xs:documentation>Washington</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="WI">  
 <xs:annotation>  
 <xs:documentation>Wisconsin</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="WV">  
 <xs:annotation>  
 <xs:documentation>West Virginia</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 <xs:enumeration value="WY">  
 <xs:annotation>  
 <xs:documentation>Wyoming</xs:documentation>  
 </xs:annotation>  
 </xs:enumeration>  
 </xs:restriction>  
 </xs:simpleType>  
  
 <xs:simpleType name="PhotoView">  
 <xs:restriction base="xs:string">  
 <xs:enumeration value="Left"/>  
 <xs:enumeration value="Front"/>  
 <xs:enumeration value="Right"/>  
 </xs:restriction>  
 </xs:simpleType>  
  
 <xs:simpleType name="MimeType">  
 <xs:annotation>  
 <xs:documentation>For complete information see:  
 https://www.iana.org/assignments/media-types/media-types.xhtml. For common examples  
 see: https://en.wikipedia.org/wiki/Media\_type </xs:documentation>  
 </xs:annotation>  
 <xs:restriction base="xs:string">  
 <xs:pattern value=".{1,127}/.{1,127}"/>  
 </xs:restriction>  
 </xs:simpleType>  
 <!-- END Simple Enumerated or Pattered Types -->  
  
</xs:schema>