



Schweizerische Eidgenossenschaft
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Département fédéral de la défense,
de la protection de la population et des sports DDPS
Office fédéral de topographie swisstopo

Instruction

du 1^{er} novembre 2017 (état au 25 août 2017)

Cadastre RDPPF DATA-Extract

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1 Introduction

La présente instruction régit les schémas en XML et en JSON du «DATA-Extract» du cadastre des restrictions de droit public à la propriété foncière. La structure du «DATA-Extract» est définie dans le modèle-cadre.

Le «DATA-Extract» selon le modèle-cadre (§6.5 Extrait du cadastre) contient toutes les données RDPPF relatives à un immeuble donné. Il s'agit d'un produit intermédiaire du cadastre RDPPF permettant l'établissement d'un extrait statique et/ou dynamique.

Le contenu du DATA-Extract se réfère à l'instruction «Cadastre RDPPF – Contenu et graphisme de l'extrait statique», les éléments du chapitre 3 de l'instruction «Cadastre RDPPF – Contenu et graphisme de l'extrait statique» se retrouvent donc dans le schéma du DATA-Extract.

1.1 Bases légales de l'extrait statique

La base légale spécifique au «DATA-Extract» se trouve dans l'Ordonnance sur le cadastre des restrictions de droit public à la propriété foncière (OCRDP, RS 510.622.4):

Art. 10 Extrait

¹ Un extrait consiste en une représentation analogique ou numérique de contenu du cadastre se rapportant au moins à un bien-fonds ou à un droit distinct et permanent.

² Les données relatives aux restrictions de droit public à la propriété foncière sont superposées à la couche d'information «bien-fonds» de la mensuration officielle.

³ L'extrait précise les éléments de contenu du cadastre qui sont représentés et ceux qui sont omis.

⁴ L'Office fédéral de topographie édicte des prescriptions applicables à la production et à la représentation d'extraits.

Art. 13 Service de recherche

L'Office fédéral de topographie permet l'accès aux cadastres des cantons via un service de recherche selon l'art. 36, let. b, OGéo.

De plus, le modèle cadre¹ pour le cadastre RDPPF définit explicitement l'obtention d'extrait du cadastre par le biais de web services.

En application de l'article 10 alinéa 4 OCRDP l'Office fédéral de topographie édicte la présente instruction sur le «DATA-Extract».

1.2 Objectifs

Cette instruction régit les schémas en XML et en JSON du «DATA-Extract». Il s'agit d'un complément du modèle-cadre pour le cadastre RDPPF, lequel définit la structure de données.

1.3 Abréviations

Liste des abréviations utilisées dans ce document

Abréviation	Désignation complète
Cadastre RDPPF	Cadastre des restrictions de droit public à la propriété foncière
DDP	Droit distinct et permanent
EGRID	Identificateur fédéral des immeubles
JSON	JavaScript Object Notation
OCRDP	Ordonnance sur le cadastre des restrictions de droit public à la propriété foncière
OGéo	Ordonnance sur la géoinformation
MO	Mensuration officielle
NoOFS	Numéro officiel de la commune

¹ www.cadastre.ch/rdppf > Modèles de données > Modèle-cadre

Abréviation	Désignation complète
RDPPF	Restriction de droit public à la propriété foncière
URL	Uniform Resource Location
URI	Uniform Resource Identifier
XML	Extensible Markup Language

2 Explications générales

2.1 Principes de base

Le cadastre RDPPF est un cadastre public et officiel. Il se doit donc d'être accessible directement par des systèmes tiers.

La présente instruction est consacrée au «DATA-Extract».

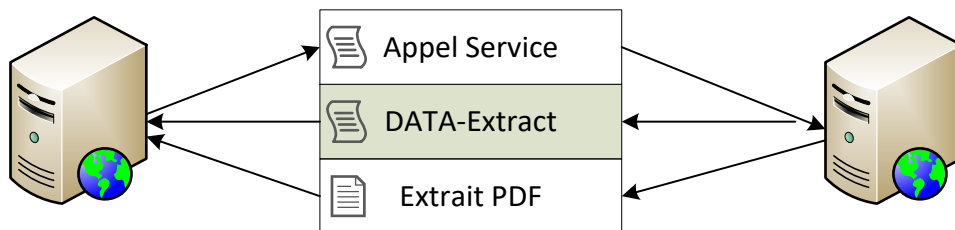


Figure 1: Vue schématique de la fonction de l'extrait décrit

En conséquence, le modèle-cadre prévoit explicitement l'obtention des informations par le biais d'un «DATA-Extract» (cf. § 6.5 extrait de données).

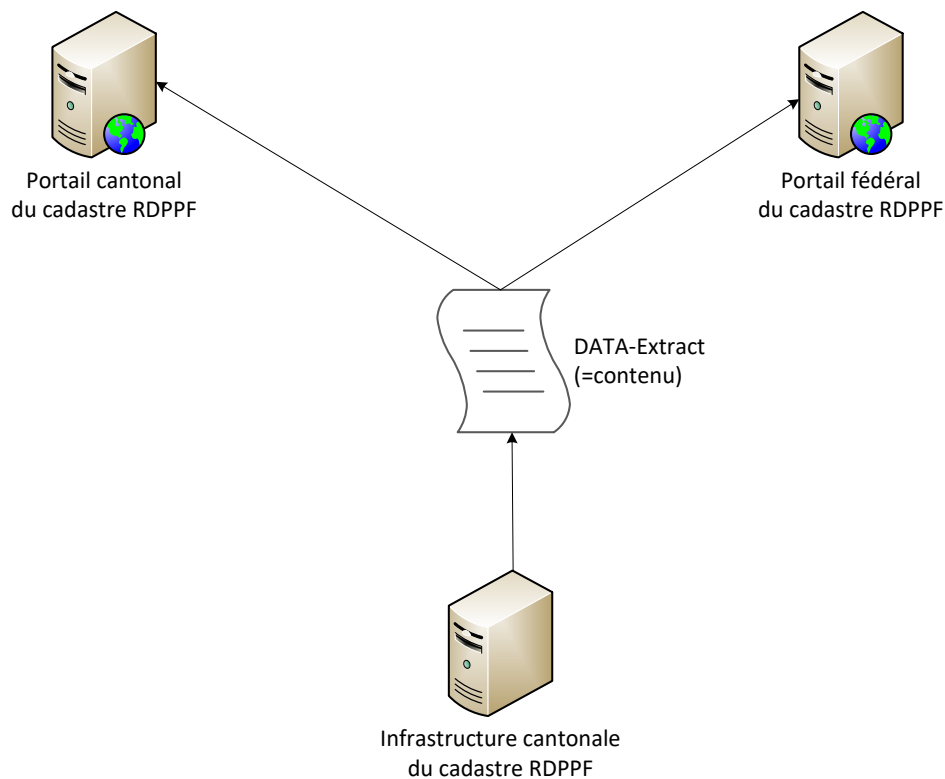


Figure 2: Exemple de mise en œuvre du DATA-Extract

3 Description du modèle de données

Le modèle de données pour le «DATA-Extract» est décrit dans le modèle-cadre (cf. § 6.5 Extrait du cadastre). Etant donné qu'il s'agit d'une interface technique, le modèle est proposé en anglais (un modèle pour toute la Suisse).

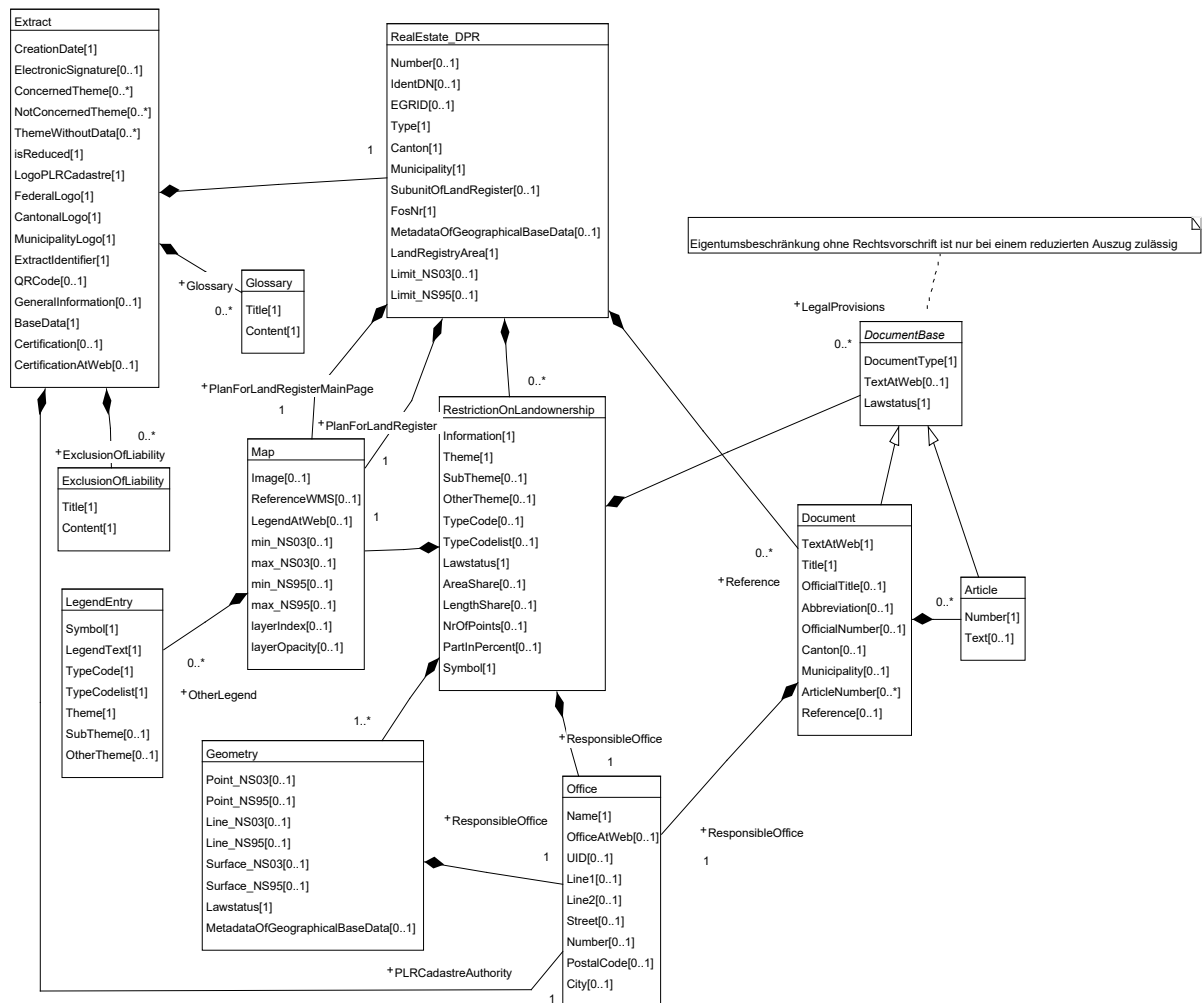


Figure 3: Diagramme UML selon modèle-cadre (en anglais)

Le diagramme UML est reproduit en version française dans la suite, afin d'en faciliter la compréhension:

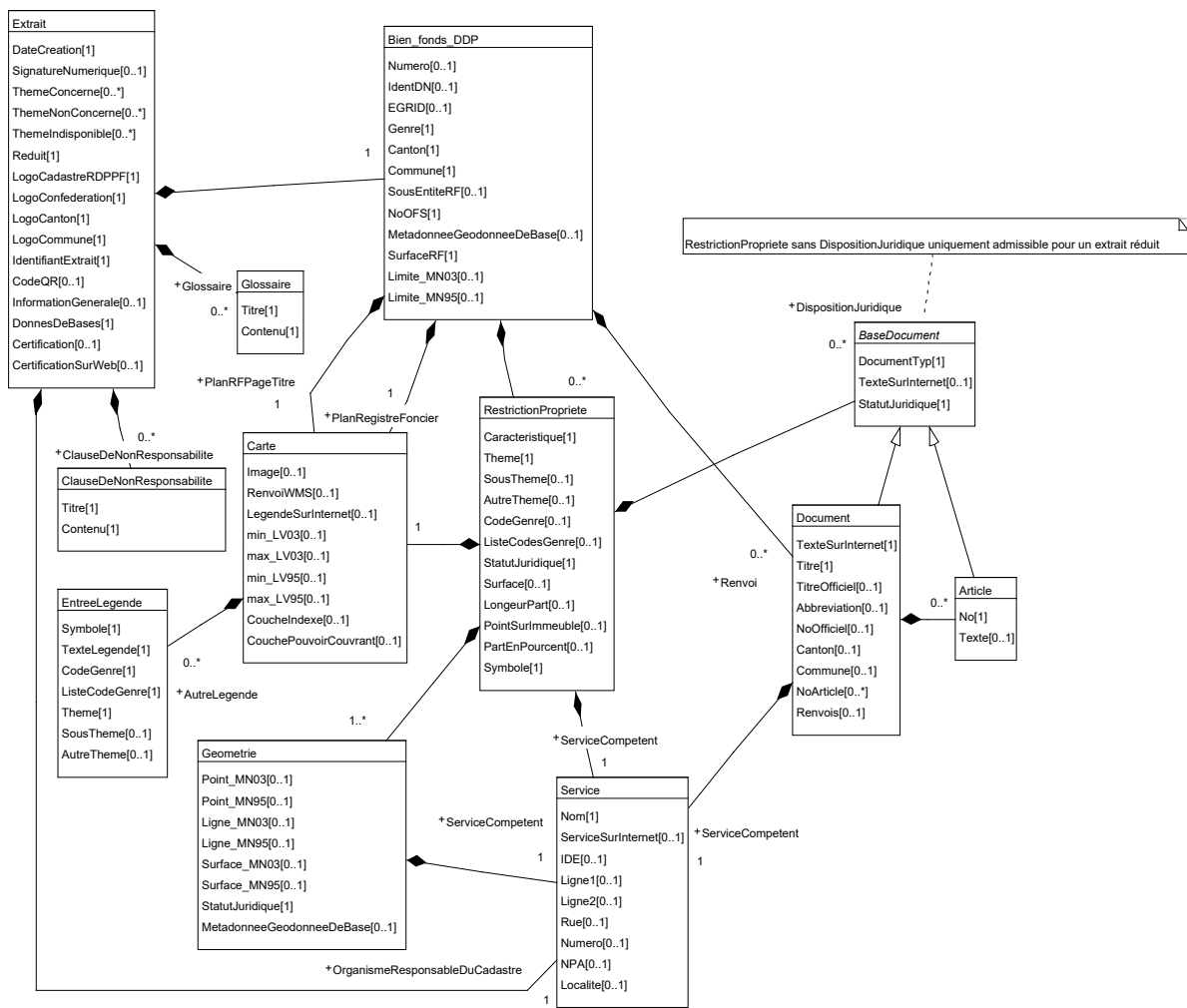


Figure 4: Diagramme UML selon modèle-cadre (en français)

4 Modifications

La présente instruction a fait l'objet d'adaptations.

Modifications à la date du 25 août 2017

Les modifications entrent en vigueur au 1^{er} novembre 2017.

1. Introduction

Précision de l'interaction entre le DATA-Extract et l'extrait statique.

3. Description du modèle de données

Adaptation du diagramme UML à la suite des retours d'implémentation dans les cantons de BE, BL, GE, NE, NW/OW.

Annexe A

Correction du schéma en XML à la suite des retours d'implémentation dans les cantons de BE, BL, GE, NE, NW/OW.

Annexe B

Correction du schéma en JSON à la suite des retours d'implémentation dans les cantons de BE, BL, GE, NE, NW/OW.

Annexe A Schéma pour le «DATA-Extract» en XML (en anglais)

Le schéma ici reproduit est publié sur http://schemas.geo.admin.ch/V_D/OeREB/1.0

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns="http://schemas.geo.admin.ch/V_D/OeREB/1.0/ExtractData"
  xmlns:gml="http://www.opengis.net/gml/3.2"
  xmlns:xmlsig="http://www.w3.org/2000/09/xmlsig#"
  targetNamespace=
    "http://schemas.geo.admin.ch/V_D/OeREB/1.0/ExtractData"
  elementFormDefault="qualified" attributeFormDefault="unqualified"
  version="1.0.3"
  >
  <xsd:import namespace="http://www.opengis.net/gml/3.2"
    schemaLocation="http://schemas.opengis.net/gml/3.2.1/gml.xsd"/>
  <xsd:import namespace="http://www.w3.org/2000/09/xmlsig#"
    schemaLocation="http://www.w3.org/TR/xmlsig-core/xmlsig-core-schema.xsd"/>

  <xsd:element name="extensions">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:any minOccurs="0" maxOccurs="unbounded" processContents="lax"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>

  <xsd:complexType name="WebReference">
    <xsd:simpleContent>
      <xsd:extension base="xsd:anyURI"/>
    </xsd:simpleContent>
  </xsd:complexType>
  <xsd:simpleType name="UID">
    <xsd:restriction base="xsd:normalizedString">
      <xsd:maxLength value="12"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="ArticleNumber">
    <xsd:restriction base="xsd:normalizedString">
      <xsd:maxLength value="20"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="RestrictiontypeCode">
    <xsd:restriction base="xsd:normalizedString">
      <xsd:maxLength value="40"/>
    </xsd:restriction>
  </xsd:simpleType>

  <xsd:simpleType name="CantonCode">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="ZH"/>
      <xsd:enumeration value="BE"/>
      <xsd:enumeration value="LU"/>
      <xsd:enumeration value="UR"/>
      <xsd:enumeration value="SZ"/>
    </xsd:restriction>
  </xsd:simpleType>

```



```

    <xsd:enumeration value="OW"/>
    <xsd:enumeration value="NW"/>
    <xsd:enumeration value="GL"/>
    <xsd:enumeration value="ZG"/>
    <xsd:enumeration value="FR"/>
    <xsd:enumeration value="SO"/>
    <xsd:enumeration value="BS"/>
    <xsd:enumeration value="BL"/>
    <xsd:enumeration value="SH"/>
    <xsd:enumeration value="AR"/>
    <xsd:enumeration value="AI"/>
    <xsd:enumeration value="SG"/>
    <xsd:enumeration value="GR"/>
    <xsd:enumeration value="AG"/>
    <xsd:enumeration value="TG"/>
    <xsd:enumeration value="TI"/>
    <xsd:enumeration value="VD"/>
    <xsd:enumeration value="VS"/>
    <xsd:enumeration value="NE"/>
    <xsd:enumeration value="GE"/>
    <xsd:enumeration value="JU"/>
    <xsd:enumeration value="FL"/>
  </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="MunicipalityCode">
  <xsd:restriction base="xsd:integer">
    <xsd:minInclusive value="1"/>
    <xsd:maxInclusive value="9999"/>
  </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="Lawstatus">
  <xsd:sequence>
    <xsd:element name="Code" type="LawstatusCode">
    </xsd:element>
    <xsd:element name="Text" type="LocalisedText">
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<xsd:simpleType name="LawstatusCode">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="inForce"/>
    <xsd:enumeration value="runningModifications"/>
  </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="Theme">
  <xsd:sequence>
    <xsd:element name="Code" type="ThemeCode">
    </xsd:element>
    <xsd:element name="Text" type="LocalisedText">
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<xsd:simpleType name="ThemeCode">
  <xsd:restriction base="xsd:string">
    <xsd:pattern
value="LandUsePlans|MotorwaysProjectPlaningZones|MotorwaysBuildingLines|RailwaysProjectPlannin

```

```

gZones|RailwaysBuildingLines|AirportsProjectPlanningZones|AirportsBuildingLines|AirportsSecurityZonePlans|ContaminatedSites|ContaminatedMilitarySites|ContaminatedCivilAviationSites|ContaminatedPublicTransportSites|GroundwaterProtectionZones|GroundwaterProtectionSites|NoiseSensitivityLevels|ForestPerimeters|ForestDistanceLines|(ch\[A-Z]{2}\.[a-zA-Z][a-zA-Z0-9]*)|(ch\[0-9]{4}\.[a-zA-Z][a-zA-Z0-9]*)|(fl\[a-zA-Z][a-zA-Z0-9]*)"/>
</xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="LocalisedUri">
  <xsd:sequence>
    <xsd:element name="Language" type="LanguageCode" minOccurs="0"/>
    <xsd:element name="Text" type="xsd:anyURI"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="MultilingualUri">
  <xsd:sequence>
    <xsd:element name="LocalisedText" type="LocalisedUri" maxOccurs="unbounded">
      </xsd:element>
    </xsd:sequence>
</xsd:complexType>
<xsd:simpleType name="LanguageCode">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="de"/>
    <xsd:enumeration value="fr"/>
    <xsd:enumeration value="it"/>
    <xsd:enumeration value="rm"/>
    <xsd:enumeration value="en"/>
  </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="LocalisedText">
  <xsd:sequence>
    <xsd:element name="Language" type="LanguageCode" minOccurs="0"/>
    <xsd:element name="Text">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:element>
    </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="LocalisedMText">
  <xsd:sequence>
    <xsd:element name="Language" type="LanguageCode" minOccurs="0"/>
    <xsd:element name="Text">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:element>
    </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="MultilingualText">
  <xsd:sequence>
    <xsd:element name="LocalisedText" type="LocalisedText" maxOccurs="unbounded">
      </xsd:element>
    </xsd:sequence>
</xsd:complexType>

```

```

<xsd:complexType name="MultilingualMText">
  <xsd:sequence>
    <xsd:element name="LocalisedText" type="LocalisedMText" maxOccurs="unbounded">
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
<xsd:simpleType name="Area">
  <xsd:restriction base="xsd:integer">
    <xsd:minInclusive value="0"/>
    <xsd:maxInclusive value="999999999"/>
  </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="Length">
  <xsd:restriction base="xsd:integer">
    <xsd:minInclusive value="0"/>
    <xsd:maxInclusive value="999999999"/>
  </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="RealEstateType">
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="RealEstate"/>
    <xsd:enumeration value="Distinct_and_permanent_rights.BuildingRight"/>
    <xsd:enumeration value="Distinct_and_permanent_rights.right_to_spring_water"/>
    <xsd:enumeration value="Distinct_and_permanent_rights.concession"/>
    <xsd:enumeration value="Distinct_and_permanent_rights.other"/>
    <xsd:enumeration value="Mineral_rights"/>
  </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="Office">
  <xsd:sequence>
    <xsd:element name="Name" type="MultilingualText">
      </xsd:element>
    <xsd:element name="OfficeAtWeb" type="WebReference" minOccurs="0"/>
    <xsd:element name="UID" type="UID" minOccurs="0"/>
    <xsd:element name="Line1" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="80"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="Line2" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="80"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="Street" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="100"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="Number" minOccurs="0">

```

```

    <xsd:simpleType>
      <xsd:restriction base="xsd:normalizedString">
        <xsd:maxLength value="7"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:element>
  <xsd:element name="PostalCode" minOccurs="0">
    <xsd:simpleType>
      <xsd:restriction base="xsd:normalizedString">
        <xsd:maxLength value="4"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:element>
  <xsd:element name="City" minOccurs="0">
    <xsd:simpleType>
      <xsd:restriction base="xsd:normalizedString">
        <xsd:maxLength value="60"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:element>
  <xsd:element ref="extensions" minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="DocumentBase">
  <xsd:sequence>
    <xsd:element name="DocumentType">
      <xsd:simpleType>
        <xsd:restriction base="xsd:token">
          <xsd:enumeration value="LegalProvision"></xsd:enumeration>
          <xsd:enumeration value="Law"></xsd:enumeration>
          <xsd:enumeration value="Hint"></xsd:enumeration>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="TextAtWeb" type="MultilingualUri" minOccurs="0">
    </xsd:element>
    <xsd:element name="Lawstatus" type="Lawstatus"/>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Glossary">
  <xsd:sequence>
    <xsd:element name="Title" type="MultilingualText">
    </xsd:element>
    <xsd:element name="Content" type="MultilingualMText">
    </xsd:element>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="ExclusionOfLiability">
  <xsd:sequence>
    <xsd:element name="Title" type="MultilingualText">
    </xsd:element>
    <xsd:element name="Content" type="MultilingualMText">
    </xsd:element>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>

```

```

</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="LegendEntry">
  <xsd:sequence>
    <xsd:choice>
      <xsd:element name="Symbol" type="xsd:base64Binary">
        </xsd:element>
      <xsd:element name="SymbolRef" type="xsd:anyURI">
        </xsd:element>
    </xsd:choice>
    <xsd:element name="LegendText" type="MultilingualText">
      </xsd:element>
    <xsd:element name="TypeCode" type="RestrictiontypeCode"/>
    <xsd:element name="TypeCodelist" type="xsd:anyURI"/>
    <xsd:element name="Theme" type="Theme"/>
    <xsd:element name="SubTheme" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="60"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Article">
  <xsd:complexContent>
    <xsd:extension base="DocumentBase">
      <xsd:sequence>
        <xsd:element name="Number" type="ArticleNumber"/>
        <xsd:element name="Text" type="MultilingualMText" minOccurs="0">
          </xsd:element>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
<xsd:complexType name="Geometry">
  <xsd:sequence>
    <xsd:choice minOccurs="0">
      <xsd:element name="Point" type="gml:PointPropertyType"/>
      <xsd:element name="Line" type="gml:CurvePropertyType" />
      <xsd:element name="Surface" type="gml:SurfacePropertyType"/>
    </xsd:choice>
    <xsd:element name="Lawstatus" type="Lawstatus"/>
    <xsd:element name="MetadataOfGeographicalBaseData" type="xsd:anyURI" minOccurs="0"/>
    <xsd:element name="ResponsibleOffice" type="Office">
      </xsd:element>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Map">
  <xsd:sequence>
    <xsd:element name="Image" type="xsd:base64Binary" minOccurs="0">
      </xsd:element>
    <xsd:element name="ReferenceWMS" type="xsd:anyURI" minOccurs="0"/>
    <xsd:element name="LegendAtWeb" type="WebReference" minOccurs="0"/>
  </xsd:sequence>

```

```

<xsd:element name="OtherLegend" type="LegendEntry" minOccurs="0" maxOccurs="unbounded">
</xsd:element>
<xsd:choice minOccurs="0">
  <xsd:sequence>
    <xsd:element name="min_NS03" type="gml:PointPropertyType" />
    <xsd:element name="max_NS03" type="gml:PointPropertyType" />
  </xsd:sequence>
  <xsd:sequence>
    <xsd:element name="min_NS95" type="gml:PointPropertyType" />
    <xsd:element name="max_NS95" type="gml:PointPropertyType" />
  </xsd:sequence>
</xsd:choice>
<xsd:element name="layerIndex">
  <xsd:simpleType>
    <xsd:restriction base="xsd:integer">
      <xsd:minInclusive value="-1000"/>
      <xsd:maxInclusive value="1000"/>
    </xsd:restriction>
  </xsd:simpleType>
</xsd:element>
<xsd:element name="layerOpacity">
  <xsd:simpleType>
    <xsd:restriction base="xsd:double">
      <xsd:minInclusive value="0.000"/>
      <xsd:maxInclusive value="1.000"/>
    </xsd:restriction>
  </xsd:simpleType>
</xsd:element>
<xsd:element ref="extensions" minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Document">
  <xsd:complexContent>
    <xsd:extension base="DocumentBase">
      <xsd:sequence>
        <xsd:element name="Title" type="MultilingualText">
</xsd:element>
        <xsd:element name="OfficialTitle" type="MultilingualText" minOccurs="0">
</xsd:element>
        <xsd:element name="Abbreviation" type="MultilingualText" minOccurs="0">
</xsd:element>
        <xsd:element name="OfficialNumber" minOccurs="0">
          <xsd:simpleType>
            <xsd:restriction base="xsd:normalizedString">
              <xsd:maxLength value="20"/>
            </xsd:restriction>
          </xsd:simpleType>
</xsd:element>
        <xsd:element name="Canton" type="CantonCode" minOccurs="0"/>
        <xsd:element name="Municipality" type="MunicipalityCode" minOccurs="0"/>
        <xsd:element name="ResponsibleOffice" type="Office">
</xsd:element>
        <xsd:element name="ArticleNumber" type="ArticleNumber" minOccurs="0"
maxOccurs="unbounded">
</xsd:element>
        <xsd:element name="Article" type="Article" minOccurs="0" maxOccurs="unbounded">

```

```

        </xsd:element>
        <xsd:element name="Reference" type="Document" minOccurs="0" maxOccurs="unbounded">
        </xsd:element>
    </xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="RestrictionOnLandownership">
    <xsd:sequence>
        <xsd:element name="Information" type="MultilingualMText">
        </xsd:element>
        <xsd:element name="Theme" type="Theme"/>
        <xsd:element name="SubTheme" minOccurs="0">
            <xsd:simpleType>
                <xsd:restriction base="xsd:normalizedString">
                    <xsd:maxLength value="60"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
        <xsd:element name="TypeCode" type="RestrictiontypeCode" minOccurs="0"/>
        <xsd:element name="TypeCodelist" type="xsd:anyURI" minOccurs="0"/>
        <xsd:element name="Lawstatus" type="Lawstatus"/>
        <xsd:element name="AreaShare" type="Area" minOccurs="0"/>
        <xsd:element name="LengthShare" type="Length" minOccurs="0"/>
        <xsd:element name="NrOfPoints" minOccurs="0">
            <xsd:simpleType>
                <xsd:restriction base="xsd:integer">
                    <xsd:minInclusive value="0"/>
                    <xsd:maxInclusive value="10000000"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
        <xsd:element name="PartInPercent" minOccurs="0">
            <xsd:simpleType>
                <xsd:restriction base="xsd:decimal">
                    <xsd:minInclusive value="0.0"/>
                    <xsd:maxInclusive value="100.0"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
        <xsd:choice>
            <xsd:element name="Symbol" type="xsd:base64Binary">
            </xsd:element>
            <xsd:element name="SymbolRef" type="xsd:anyURI">
            </xsd:element>
        </xsd:choice>
        <xsd:element name="Geometry" type="Geometry" maxOccurs="unbounded">
        </xsd:element>
        <xsd:element name="Map" type="Map">
        </xsd:element>
        <xsd:element name="LegalProvisions" type="DocumentBase" minOccurs="0"
            maxOccurs="unbounded">
        </xsd:element>
        <xsd:element name="ResponsibleOffice" type="Office">
        </xsd:element>
        <xsd:element ref="extensions" minOccurs="0"/>
    </xsd:sequence>
</xsd:complexType>

```

```

</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="RealEstate_DPR">
  <xsd:sequence>
    <xsd:element name="Number" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="12"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="IdentDN" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="12"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="EGRID" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="14"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="Type" type="RealEstateType"/>
    <xsd:element name="Canton" type="CantonCode"/>
    <xsd:element name="Municipality">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="60"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="SubunitOfLandRegister" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="60"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="FosNr" type="MunicipalityCode"/>
    <xsd:element name="MetadataOfGeographicalBaseData" type="xsd:anyURI" minOccurs="0"/>
    <xsd:element name="LandRegistryArea" type="Area"/>
    <xsd:element name="Limit" type="gml:MultiSurfacePropertyType" minOccurs="0">
      </xsd:element>
    <xsd:element name="RestrictionOnLandownership" type="RestrictionOnLandownership"
minOccurs="0" maxOccurs="unbounded">
      </xsd:element>
    <xsd:element name="PlanForLandRegister" type="Map">
      </xsd:element>
    <xsd:element name="PlanForLandRegisterMainPage" type="Map">
      </xsd:element>
    <xsd:element name="Reference" type="Document" minOccurs="0" maxOccurs="unbounded">
      </xsd:element>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>

```



```

</xsd:sequence>
</xsd:complexType>
<xsd:element name="Extract" type="Extract"/>
<xsd:complexType name="Extract">
  <xsd:sequence>
    <xsd:element name="CreationDate">
      <xsd:simpleType>
        <xsd:restriction base="xsd:dateTime">
          <xsd:minInclusive value="2009-01-01T00:00:00.000"/>
          <xsd:maxInclusive value="2999-12-31T23:59:59.000"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element ref="xslsig:Signature" minOccurs="0" maxOccurs="1"/>
    <xsd:element name="ConcernedTheme" type="Theme" minOccurs="0" maxOccurs="unbounded">
    </xsd:element>
    <xsd:element name="NotConcernedTheme" type="Theme" minOccurs="0" maxOccurs="unbounded">
    </xsd:element>
    <xsd:element name="ThemeWithoutData" type="Theme" minOccurs="0" maxOccurs="unbounded" >
    </xsd:element>
    <xsd:element name="isReduced" type="xsd:boolean"/>
    <xsd:choice>
      <xsd:element name="LogoPLRCadastre" type="xsd:base64Binary" >
      </xsd:element>
      <xsd:element name="LogoPLRCadastreRef" type="xsd:anyURI" >
      </xsd:element>
    </xsd:choice>
    <xsd:choice>
      <xsd:element name="FederalLogo" type="xsd:base64Binary">
      </xsd:element>
      <xsd:element name="FederalLogoRef" type="xsd:anyURI">
      </xsd:element>
    </xsd:choice>
    <xsd:choice>
      <xsd:element name="CantonalLogo" type="xsd:base64Binary" >
      </xsd:element>
      <xsd:element name="CantonalLogoRef" type="xsd:anyURI" >
      </xsd:element>
    </xsd:choice>
    <xsd:choice>
      <xsd:element name="MunicipalityLogo" type="xsd:base64Binary" >
      </xsd:element>
      <xsd:element name="MunicipalityLogoRef" type="xsd:anyURI" >
      </xsd:element>
    </xsd:choice>
    <xsd:element name="ExtractIdentifier">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="50"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:choice minOccurs="0">
      <xsd:element name="QRCode" type="xsd:base64Binary">
      </xsd:element>
      <xsd:element name="QRCodeRef" type="xsd:anyURI">

```

```

    </xsd:element>
</xsd:choice>
<xsd:element name="GeneralInformation" type="MultilingualMText" minOccurs="0">
</xsd:element>
<xsd:element name="BaseData" type="MultilingualMText">
</xsd:element>
<xsd:element name="Glossary" type="Glossary" minOccurs="0" maxOccurs="unbounded">
</xsd:element>
<xsd:element name="RealEstate" type="RealEstate_DPR">
</xsd:element>
<xsd:element name="ExclusionOfLiability" type="ExclusionOfLiability" minOccurs="0"
maxOccurs="unbounded">
</xsd:element>
<xsd:element name="PLRCadastreAuthority" type="Office">
</xsd:element>
<xsd:element name="Certification" type="MultilingualMText" minOccurs="0">
</xsd:element>
<xsd:element name="CertificationAtWeb" type="MultilingualUri" minOccurs="0">
</xsd:element>
<xsd:element ref="extensions" minOccurs="0"/>
</xsd:sequence>
<xsd:attribute name="id" type="xsd:ID" use="optional"/>
<xsd:anyAttribute processContents="lax"/>
</xsd:complexType>
</xsd:schema>

```

Annexe B Schéma pour le «DATA-Extract» en JSON (en anglais)

Le schéma ici reproduit est publié sur http://schemas.geo.admin.ch/V_D/OeREB/1.0

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "$id": "http://schemas.geo.admin.ch/V_D/OeREB/1.0/extractdata.json",
  "fileVersion": "1.0.1",
  "type": "object",
  "anyOf": [{
    "$ref": "#/definitions/Extract"
  }],
  "definitions": {
    "base64Binary": {
      "pattern": "([A-Za-z0-9]{4})+={0,2}"
    },
    "dateTime": {
      "pattern": "[0-9]{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}(.[0-9]{1,3})?"
    },
    "Signature": {
      "pattern": "([A-Za-z0-9]{4})+={0,2}"
    },
    "UID": {
      "type": "string",
      "maxLength": 12
    },
    "WebReference": {
      "type": "string",
      "format": "uri"
    },
    "LocalisedMText": {
      "type": "object",
      "properties": {
        "Language": {
          "$ref": "#/definitions/LanguageCode"
        },
        "Text": {
          "type": "string"
        }
      }
    },
    "LocalisedText": {
      "type": "object",
      "properties": {
        "Language": {
          "$ref": "#/definitions/LanguageCode"
        },
        "Text": {
          "type": "string"
        }
      }
    },
    "LocalisedUri": {
      "type": "object",

```

```

    "properties": {
      "Language": {
        "$ref": "#/definitions/LanguageCode"
      },
      "Text": {
        "$ref": "#/definitions/anyURI"
      }
    }
  },
  "MultilingualMText": {
    "type": "array",
    "items": {
      "$ref": "#/definitions/LocalisedMText"
    },
    "minItems": 1
  },
  "MultilingualText": {
    "type": "array",
    "items": {
      "$ref": "#/definitions/LocalisedText"
    },
    "minItems": 1
  },
  "MultilingualUri": {
    "type": "array",
    "items": {
      "$ref": "#/definitions/LocalisedUri"
    },
    "minItems": 1
  },
  "RealEstateType": {
    "enum": [
      "RealEstate",
      "Distinct_and_permanent_rights.BuildingRight",
      "Distinct_and_permanent_rights.right_to_spring_water",
      "Distinct_and_permanent_rights.concession",
      "Distinct_and_permanent_rights.other",
      "Mineral_rights"
    ]
  },
  "CantonCode": {
    "enum": [
      "ZH",
      "BE",
      "LU",
      "UR",
      "SZ",
      "OW",
      "NW",
      "GL",
      "ZG",
      "FR",
      "SO",
      "BS",
      "BL",
      "SH",
    ]
  }
}

```

```

        "AR",
        "AI",
        "SG",
        "GR",
        "AG",
        "TG",
        "TI",
        "VD",
        "VS",
        "NE",
        "GE",
        "JU",
        "FL"
    ]
},
"MunicipalityCode": {
    "type": "number",
    "minimum": 0,
    "maximum": 9999
},
"LanguageCode": {
    "enum": [
        "de",
        "fr",
        "it",
        "rm",
        "en"
    ]
},
"anyURI": {
    "type": "string",
    "format": "uri"
},
"Area": {
    "type": "number",
    "minimum": 0,
    "maximum": 999999999
},
"Length": {
    "type": "number",
    "minimum": 0,
    "maximum": 999999999
},
"position": {
    "type": "array",
    "items": {
        "type": "number"
    },
    "minItems": 2
},
"positionArray": {
    "type": "array",
    "items": { "$ref": "#/definitions/position" }
},
"PointPropertyType": {
    "type": "object",

```

```

    "properties": {
      "type": { "enum": [ "Point" ] },
      "coordinates": { "$ref": "#/definitions/position" },
      "crs": {
        "type": "string"
      }
    }
  },
  "CurvePropertyType": {
    "type": "object",
    "properties": {
      "type": { "enum": [ "LineString","CompoundCurve" ] },
      "coordinates": { "$ref": "#/definitions/positionArray" },
      "crs": {
        "type": "string"
      },
      "isosqlmmwkb": {
        "$ref": "#/definitions/base64Binary"
      }
    }
  },
  "SurfacePropertyType": {
    "type": "object",
    "properties": {
      "type": { "enum": [ "Polygon" ,"CurvePolygon" ] },
      "coordinates": {
        "type": "array",
        "items": { "$ref": "#/definitions/positionArray" },
        "minItems": 1
      },
      "crs": {
        "type": "string"
      },
      "isosqlmmwkb": {
        "$ref": "#/definitions/base64Binary"
      }
    }
  },
  "MultiSurface": {
    "type": "object",
    "properties": {
      "type": { "enum": [ "MultiPolygon","MultiCurvePolygon" ] },
      "coordinates": {
        "type": "array",
        "items": {
          "type": "array",
          "items": { "$ref": "#/definitions/positionArray" },
          "minItems": 1
        },
        "minItems": 1
      },
      "crs": {
        "type": "string"
      },
      "isosqlmmwkb": {
        "$ref": "#/definitions/base64Binary"
      }
    }
  }
}

```

```

    }
  },
  "Theme": {
    "type": "object",
    "properties": {
      "Code": {
        "$ref": "#/definitions/ThemeCode"
      },
      "Text": {
        "$ref": "#/definitions/LocalisedText"
      }
    }
  },
  "ThemeCode": {
    "pattern":
"LandUsePlans|MotorwaysProjectPlaningZones|MotorwaysBuildingLines|RailwaysProjectPlanningZones
|RailwaysBuildingLines|AirportsProjectPlanningZones|AirportsBuildingLines|AirportsSecurityZone
Plans|ContaminatedSites|ContaminatedMilitarySites|ContaminatedCivilAviationSites|ContaminatedP
ublicTransportSites|GroundwaterProtectionZones|GroundwaterProtectionSites|NoiseSensitivityLeve
ls|ForestPerimeters|ForestDistanceLines|(ch.[A-Z]{2}.[a-zA-Z][a-zA-Z0-9]*)|(ch.[0-9]{4}.[a-zA-
Z][a-zA-Z0-9]*)|(fl.[a-zA-Z][a-zA-Z0-9]*)"
  },
  "DocumentTypeCode": {
    "pattern": "LegalProvision|Law|Hint"
  },
  "LegendEntry": {
    "type": "object",
    "properties": {
      "Symbol": {
        "$ref": "#/definitions/base64Binary"
      },
      "SymbolRef": {
        "$ref": "#/definitions/anyURI"
      },
      "LegendText": {
        "$ref": "#/definitions/MultilingualText"
      },
      "TypeCode": {
        "$ref": "#/definitions/RestrictiontypeCode"
      },
      "TypeCodelist": {
        "$ref": "#/definitions/anyURI"
      },
      "Theme": {
        "$ref": "#/definitions/Theme"
      },
      "SubTheme": {
        "type": "string",
        "maxLength": 60
      }
    }
  },
  "Map": {
    "type": "object",
    "properties": {

```

```

    "Image": {
      "$ref": "#/definitions/base64Binary"
    },
    "ReferenceWMS": {
      "$ref": "#/definitions/anyURI"
    },
    "LegendAtWeb": {
      "$ref": "#/definitions/WebReference"
    },
    "OtherLegend": {
      "type": "array",
      "items": {
        "$ref": "#/definitions/LegendEntry"
      }
    },
    "min_NS03": {
      "$ref": "#/definitions/PointPropertyType"
    },
    "max_NS03": {
      "$ref": "#/definitions/PointPropertyType"
    },
    "min_NS95": {
      "$ref": "#/definitions/PointPropertyType"
    },
    "max_NS95": {
      "$ref": "#/definitions/PointPropertyType"
    },
    "layerIndex": {
      "type": "number",
      "minimum": -1000,
      "maximum": 1000
    },
    "layerOpacity": {
      "type": "number",
      "minimum": 0.000,
      "maximum": 1.000
    }
  }
},
"Glossary": {
  "type": "object",
  "properties": {
    "Title": {
      "$ref": "#/definitions/MultilingualText"
    },
    "Content": {
      "$ref": "#/definitions/MultilingualMText"
    }
  }
},
"Document": {
  "type": "object",
  "properties": {
    "DocumentType": {
      "$ref": "#/definitions/DocumentTypeCode"
    }
  },

```



```

    "TextAtWeb": {
      "$ref": "#/definitions/MultilingualUri"
    },
    "Lawstatus": {
      "$ref": "#/definitions/Lawstatus"
    },
    "Title": {
      "$ref": "#/definitions/MultilingualText"
    },
    "OfficialTitle": {
      "$ref": "#/definitions/MultilingualText"
    },
    "Abbreviation": {
      "$ref": "#/definitions/MultilingualText"
    },
    "OfficialNumber": {
      "type": "string",
      "maxLength": 20
    },
    "Canton": {
      "$ref": "#/definitions/CantonCode"
    },
    "Municipality": {
      "$ref": "#/definitions/MunicipalityCode"
    },
    "ResponsibleOffice": {
      "$ref": "#/definitions/Office"
    },
    "ArticleNumber": {
      "type": "array",
      "items": {
        "$ref": "#/definitions/ArticleNumber"
      }
    },
    "Article": {
      "type": "array",
      "items": {
        "$ref": "#/definitions/Article"
      }
    },
    "Reference": {
      "type": "array",
      "items": {
        "$ref": "#/definitions/Document"
      }
    }
  },
  "Lawstatus": {
    "type": "object",
    "properties": {
      "Code": {
        "$ref": "#/definitions/LawstatusCode"
      },
      "Text": {
        "$ref": "#/definitions/LocalisedText"
      }
    }
  }

```

```

    }
  },
  "LawstatusCode": {
    "enum": [
      "inForce",
      "runningModifications"
    ]
  },
  "ArticleNumber": {
    "type": "string",
    "maxLength": 20
  },
  "RestrictiontypeCode": {
    "type": "string",
    "maxLength": 40
  },
  "Article": {
    "type": "object",
    "properties": {
      "DocumentType": {
        "$ref": "#/definitions/DocumentTypeCode"
      },
      "TextAtWeb": {
        "$ref": "#/definitions/MultilingualUri"
      },
      "Lawstatus": {
        "$ref": "#/definitions/Lawstatus"
      },
      "Number": {
        "$ref": "#/definitions/ArticleNumber"
      },
      "Text": {
        "$ref": "#/definitions/MultilingualMText"
      }
    }
  },
  "Geometry": {
    "type": "object",
    "properties": {
      "Point": {
        "$ref": "#/definitions/PointPropertyType"
      },
      "Line": {
        "$ref": "#/definitions/CurvePropertyType"
      },
      "Surface": {
        "$ref": "#/definitions/SurfacePropertyType"
      },
      "Lawstatus": {
        "$ref": "#/definitions/Lawstatus"
      },
      "MetadataOfGeographicalBaseData": {
        "$ref": "#/definitions/anyURI"
      },
      "ResponsibleOffice": {

```

```

        "$ref": "#/definitions/Office"
    }
}
},
"RestrictionOnLandownership": {
    "type": "object",
    "properties": {
        "Information": {
            "$ref": "#/definitions/MultilingualMText"
        },
        "Theme": {
            "$ref": "#/definitions/Theme"
        },
        "SubTheme": {
            "type": "string",
            "maxLength": 60
        },
        "TypeCode": {
            "$ref": "#/definitions/RestrictiontypeCode"
        },
        "TypeCodelist": {
            "$ref": "#/definitions/anyURI"
        },
        "Lawstatus": {
            "$ref": "#/definitions/Lawstatus"
        },
        "AreaShare": {
            "$ref": "#/definitions/Area"
        },
        "LengthShare": {
            "$ref": "#/definitions/Length"
        },
        "NrOfPoints": {
            "type": "number",
            "minimum": 0,
            "maximum": 10000000
        },
        "PartInPercent": {
            "type": "number",
            "minimum": 0.0,
            "maximum": 100.0
        },
        "Symbol": {
            "$ref": "#/definitions/base64Binary"
        },
        "SymbolRef": {
            "$ref": "#/definitions/anyURI"
        },
        "Geometry": {
            "type": "array",
            "items": {
                "$ref": "#/definitions/Geometry"
            }
        },
        "Map": {
            "$ref": "#/definitions/Map"
        }
    }
}

```

```

    },
    "LegalProvisions": {
      "type": "array",
      "items": {
        "type": "object",
        "anyOf": [{
          "$ref": "#/definitions/Article",
          "$ref": "#/definitions/Document"
        }]
      }
    },
    },
    "ResponsibleOffice": {
      "$ref": "#/definitions/Office"
    }
  }
},
"RealEstate_DPR": {
  "type": "object",
  "properties": {
    "Number": {
      "type": "string",
      "maxLength": 12
    },
    },
    "IdentDN": {
      "type": "string",
      "maxLength": 12
    },
    },
    "EGRID": {
      "type": "string",
      "maxLength": 14
    },
    },
    "Type": {
      "$ref": "#/definitions/RealEstateType"
    },
    },
    "Canton": {
      "$ref": "#/definitions/CantonCode"
    },
    },
    "Municipality": {
      "type": "string",
      "maxLength": 60
    },
    },
    "SubunitOfLandRegister": {
      "type": "string",
      "maxLength": 60
    },
    },
    "FosNr": {
      "$ref": "#/definitions/MunicipalityCode"
    },
    },
    "MetadataOfGeographicalBaseData": {
      "$ref": "#/definitions/anyURI"
    },
    },
    "LandRegistryArea": {
      "$ref": "#/definitions/Area"
    },
    },
    "Limit": {
      "$ref": "#/definitions/MultiSurface"
    }
  }
}

```

```

    },
    "RestrictionOnLandownership": {
      "type": "array",
      "items": {
        "$ref": "#/definitions/RestrictionOnLandownership"
      },
      "minItems": 0
    },
    "PlanForLandRegister": {
      "$ref": "#/definitions/Map"
    },
    "PlanForLandRegisterMainPage": {
      "$ref": "#/definitions/Map"
    },
    "Reference": {
      "type": "array",
      "items": {
        "$ref": "#/definitions/Document"
      },
      "minItems": 0
    }
  }
},
"ExclusionOfLiability": {
  "type": "object",
  "properties": {
    "Title": {
      "$ref": "#/definitions/MultilingualText"
    },
    "Content": {
      "$ref": "#/definitions/MultilingualMText"
    }
  }
},
"Office": {
  "type": "object",
  "properties": {
    "Name": {
      "$ref": "#/definitions/MultilingualText"
    },
    "OfficeAtWeb": {
      "$ref": "#/definitions/WebReference"
    },
    "UID": {
      "$ref": "#/definitions/UID"
    },
    "Line1": {
      "type": "string",
      "maxLength": 80
    },
    "Line2": {
      "type": "string",
      "maxLength": 80
    },
    "Street": {
      "type": "string",

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```

        "maxLength": 100
    },
    "Number": {
        "type": "string",
        "maxLength": 7
    },
    "PostalCode": {
        "type": "string",
        "maxLength": 4
    },
    "City": {
        "type": "string",
        "maxLength": 60
    }
}
},
"Extract": {
    "type": "object",
    "properties": {
        "CreationDate": {
            "$ref": "#/definitions/dateTime"
        },
        "Signature": {
            "$ref": "#/definitions/Signature"
        },
        "ConcernedTheme": {
            "type": "array",
            "items": {
                "$ref": "#/definitions/Theme"
            },
            "minItems": 0
        },
        "NotConcernedTheme": {
            "type": "array",
            "items": {
                "$ref": "#/definitions/Theme"
            },
            "minItems": 0
        },
        "ThemeWithoutData": {
            "type": "array",
            "items": {
                "$ref": "#/definitions/Theme"
            },
            "minItems": 0
        },
        "isReduced": {
            "type": "boolean"
        },
        "LogoPLRCadastre": {
            "$ref": "#/definitions/base64Binary"
        },
        "LogoPLRCadastreRef": {
            "$ref": "#/definitions/anyURI"
        },
        "FederalLogo": {

```

```

        "$ref": "#/definitions/base64Binary"
    },
    "FederalLogoRef": {
        "$ref": "#/definitions/anyURI"
    },
    "CantonalLogo": {
        "$ref": "#/definitions/base64Binary"
    },
    "CantonalLogoRef": {
        "$ref": "#/definitions/anyURI"
    },
    "MunicipalityLogo": {
        "$ref": "#/definitions/base64Binary"
    },
    "MunicipalityLogoRef": {
        "$ref": "#/definitions/anyURI"
    },
    "ExtractIdentifier": {
        "type": "string",
        "maxLength": 50
    },
    "QRCode": {
        "$ref": "#/definitions/base64Binary"
    },
    "QRCodeRef": {
        "$ref": "#/definitions/anyURI"
    },
    "GeneralInformation": {
        "$ref": "#/definitions/MultilingualMText"
    },
    "BaseData": {
        "$ref": "#/definitions/MultilingualMText"
    },
    "Glossary": {
        "type": "array",
        "items": {
            "$ref": "#/definitions/Glossary"
        },
        "minItems": 0
    },
    "RealEstate": {
        "$ref": "#/definitions/RealEstate_DPR"
    },
    "ExclusionOfLiability": {
        "type": "array",
        "items": {
            "$ref": "#/definitions/ExclusionOfLiability"
        },
        "minItems": 0
    },
    "PLRCadastreAuthority": {
        "$ref": "#/definitions/Office"
    },
    "Certification": {
        "$ref": "#/definitions/MultilingualMText"
    },

```

```
        "CertificationAtWeb": {
            "$ref": "#/definitions/MultilingualUri"
        }
    }
}
```