

Geological conservation areas

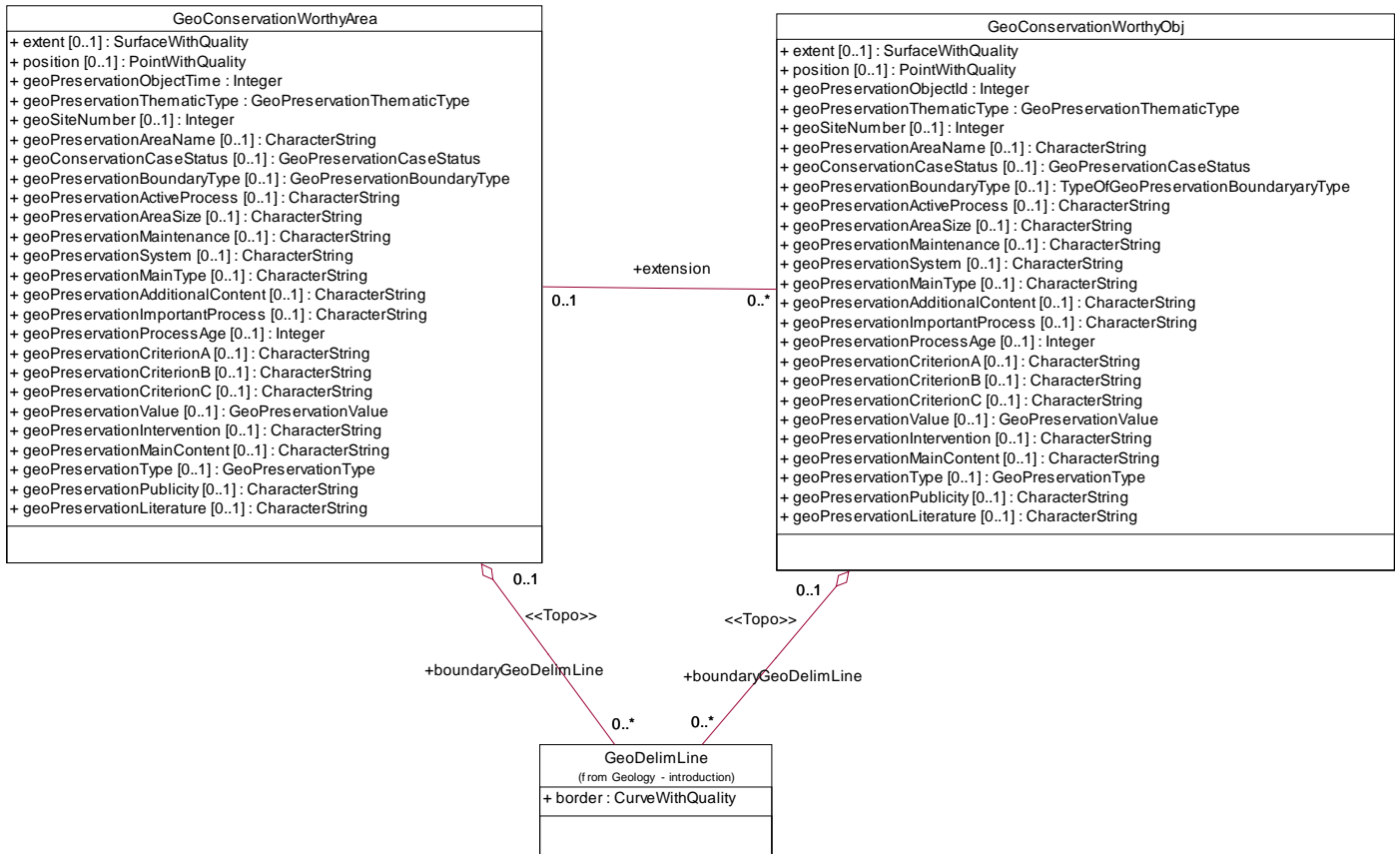


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1.1 Application schema



Codelists

<<CodeList>> GeoPreservationValue
+ The area is one of the IUGS GEOSITE areas = 1 + Highly conservation-worthy areas of major national or international significance = 2 + Highly conservation-worthy areas of regional significance = 3 + Conservation-worthy areas of more local significance = 4 + Geological valuable locality, mainly of local significance = 5

<<CodeList>> GeoPreservationCaseStatus
+ The area has been granted permanent conservation status = 1 + Area proposed for conservation = 2 + Area that might be proposed for conservation = 3 + Area should have a sort of protection status in the municipal land-use plan = 4

<<CodeList>> GeoPreservationType
+ Protected pursuant to the Nature Conservation Act = 1 + Located in an area which is protected pursuant to the Nature Conservation Act = 2 + Area protected through the Planning Act = 3 + Other protective/conservation action exist = 4 + No protective or conservation action taken = 5

<<CodeList>> GeoPreservationThematicType
+ Quaternary geology (in generally) = 1 + Bedrock geology (in generally) = 10 + Fossils = 11 + Structures = 12 + Ore (generally) = 20 + Old mine = 21 + Iron = 22 + Old ore claim = 23 + Mineral deposit (generally) = 30 + Cave = 40

<<CodeList>> GeoPreservationBoundaryType
+ Boundary with a final demarcation - conservation area = 91 + Proposed boundary - conservation area = 92 + Boundary with approximate demarcation - conservation area = 93 + Boundary with an approximate demarcation feature used for arealin planning = 94

1.2 Description

1.2.1 GeoConservationWorthyArea

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
1	Class GeoConservation WorthyArea	approximately designated area containing one or more geological objects which may be protection-worthy				
1.1	extent	area over which an object extends	0	1	SurfaceWithQuality	
1.2	position	location where the object exists	0	1	PointWithQuality	
1.3	geoPreservation ObjectTime	identifier for conservation-worthy object Note: Identification number consisting of municipal no. + serial no. For example: 1729001 for Site 001 in Inderøy municipality (1729). The number of the area	1	1	Integer	
1.4	geoPreservation ThematicType	which geological thematic type is conservation-worthy Note: E.g bedrock, quaternary geol., ore geol.	1	1	GeoPreservationThematicType	
1.5	geoSiteNumber	identifier in the IUGS database for conservation-worthy geological areas	0	1	Integer	
1.6	geoPreservation AreaName	name of conservation-worthy area Note: Name of the area containing conservation-worthy geological object(s)	0	1	CharacterString	
1.7	geoConservation CaseStatus	how far the Conservation case has progressed in the legal process	0	1	GeoPreservationCaseStatus	
1.8	geoPreservation BoundaryType	criterion for delimitation of a conservation-worthy feature	0	1	GeoPreservationBoundaryType	
1.9	geoPreservation ActiveProcess	active geological processes illustrated, which make the feature/area conservation-worthy (mass movement, river erosion, etc.)	0	1	CharacterString	
1.10	geoPreservation AreaSize	the size of the conservation-worthy area. Note: Specification of area, rough estimate of area. (Point=less than 10	0	1	CharacterString	

		hectares, Small=10 hectares (1 square kilometre), Medium=1-10 square kilometres, Large?10 square kilometres				
1.1 1	geoPreservation Maintenance	type of maintenance necessary for an object to keep its value Note: Requirements related to maintenance/care to maintain the areaXzXs conservational value. For example: Clearing of mountain surfaces, preventing overgrowth, clearing of trees/forest	0	1	CharacterString	
1.1 2	geoPreservation System	whether the area contains of larger system of superficial shapes and/or deposits	0	1	CharacterString	
1.1 3	geoPreservation MainType	paramount type of geological phenomenon/topic which makes the feature worthy of preservation For example: Main types such as ablation shapes, glacial edge deposits, pillow lava, older ore sites, mineral deposits, etc.	0	1	CharacterString	
1.1 4	geoPreservation AdditionalContent	supplementary information about GeoConservation-Worthy feature or area For example: Subordinate observations such as shorelines, eskers, melt water courses, etc.	0	1	CharacterString	
1.1 5	geoPreservation ImportantProcess	important geological processes that can be observed in the area Note: E.g (glacial processes, subsea volcanism, contact metamorphism, bog ore extraction	0	1	CharacterString	
1.1 6	geoPreservation ProcessAge	estimated age of the creation of the conservation-worthy features Note: Probable age of the formation of main type/main content or process	0	1	Integer	
1.1 7	geoPreservation CriterionA	the primary criterion which makes the feature/area	0	1	CharacterString	

		conservation-worthy For example: scarcity, representativeness, diversity, function, untouched nature				
1.18	geoPreservationCriterionB	the secondary criterion making the feature/area conservation-worthy For example: research potential, classic site, key area for geoscience, natural history documentation, instructive site, availability, untouched nature	0	1	CharacterString	
1.19	geoPreservationCriterionC	peripheral preservation criterion. Note: The intrinsic value of the feature/area represents much of the conservation-worthiness	0	1	CharacterString	
1.20	geoPreservationValue	whether GeoConservation-Worthy feature or area the object is of international, national, regional or local value. Note: Criteria for selection and prioritisation of conservation-worthy geological	0	1	GeoPreservationValue	
1.21	geoPreservationIntervention	interventions which diminish the conservational value and the adventure value For example: Interventions such as sand and gravel deposits, existing land use, etc	0	1	CharacterString	
1.22	geoPreservationMainContent	most important geological registration or observation at the location or in the area. Note: technical terms for the most important geological registrations/observations at the location or in the area. For example: Moraines, (kame deltas/ice lake terraces), deltas, up/down criteria in pillow lava, loosening rock by heating	0	1	CharacterString	
1.23	geoPreservationType	the type of conservation the object is subject to	0	1	GeoPreservationType	

		Note: Different legislation and restrictions				
1.2 4	geoPreservation Publicity	initiative to give publicity to the GeoConservation-Worthy feature or area Note: Actions taken to make the area/attraction known to the public (for example: information centre, information board, brochure, guiding, part of nature trail)	0	1	CharacterString	
1.2 5	geoPreservation Literature	reference to relevant literature	0	1	CharacterString	
1.2 6	Role boundaryGeoDelimLine		0	N	GeoDelimLine	Aggregation
1.2 7	Role (unnamed) GeoConservation WorthyObj		0	N	GeoConservationWorthyObj	

1.2.2 GeoConservationWorthyObj

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
2	Class GeoConservation WorthyObj	name of conservation-worthy area Note: Name of the area containing conservation-worthy geological object(s)				
2.1	extent	area over which an object extends	0	1	SurfaceWithQuality	
2.2	position	location where the object exists	0	1	PointWithQuality	
2.3	geoPreservation Objectld	identifier for conservation-worthy object Note: Identification number consisting of municipal no. + serial no. For example: 1729001 for Site 001 in Inderøy municipality (1729). The number of the area	1	1	Integer	
2.4	geoPreservation ThematicType	which geological thematic type is conservation-worthy Note: Which conservation-worthy geological thematic types (bedrock, quaternary geol., ore geol., etc.) exist in the area	1	1	GeoPreservationThematicType	
2.5	geoSiteNumber	identifier in the IUGS database for conservation-worthy geological areas	0	1	Integer	

2.6	geoPreservationAreaName	name of conservation-worthy area Note: Name of the area containing conservation-worthy geological object(s)	0	1	CharacterString	
2.7	geoConservationCaseStatus	how far the Conservation case has progressed in the legal process	0	1	GeoPreservationCaseStatus	
2.8	geoPreservationBoundaryType	criterion for delimitation of a conservation-worthy feature	0	1	TypeOfGeoPreservationBoundaryType	
2.9	geoPreservationActiveProcess	active geological processes illustrated, which make the feature/area conservation-worthy (mass movement, river erosion, etc.)	0	1	CharacterString	
2.10	geoPreservationAreaSize	the size of the conservation-worthy area. Note: Specification of area, rough estimate of area. (Point=less than 10 hectares, Small=10 hectares (1 square kilometre), Medium=1-10 square kilometres, Large?10 square kilometres	0	1	CharacterString	
2.11	geoPreservationMaintenance	type of maintenance necessary for an object to keep its value Note: Requirements related to maintenance/care to maintain the area's conservational value. For example: Clearing of mountain surfaces, preventing overgrowth, clearing of trees/forest	0	1	CharacterString	
2.12	geoPreservationSystem	whether the area contains of larger system of superficial shapes and/or deposits	0	1	CharacterString	
2.13	geoPreservationMainType	paramount type of geological phenomenon/topic which makes the feature worthy of preservation For example: Main types such as ablation shapes, glacial edge deposits, pillow lava, older ore sites, mineral deposits, etc.	0	1	CharacterString	
2.14	geoPreservationAdditionalContent	supplementary information about GeoConservation-	0	1	CharacterString	

	t	Worthy feature or area For example: Subordinate observations such as shorelines, eskers, melt water courses, etc.				
2.1 5	geoPreservationImportantProcess	important geological processes that can be observed in the area Note: E.g (glacial processes, subsea volcanism, contact metamorphism, bog ore extraction	0	1	CharacterString	
2.1 6	geoPreservationProcessAge	estimated age of the creation of the conservation-worthy features Note: Probable age of the formation of main type/main content or process	0	1	Integer	
2.1 7	geoPreservationCriterionA	the primary criterion which makes the feature/area conservation-worthy For example: scarcity, representativeness, diversity, function, untouched nature	0	1	CharacterString	
2.1 8	geoPreservationCriterionB	the secondary criterion making the feature/area conservation-worthy For example: research potential, classic site, key area for geoscience, natural history documentation, instructive site, availability, untouched nature	0	1	CharacterString	
2.1 9	geoPreservationCriterionC	more peripheral preservation criterion Note: The objectXzXs intrinsic value represents much of the conservation-worthiness	0	1	CharacterString	
2.2 0	geoPreservationValue	whether GeoConservation-Worthy feature or area the object is of international, national, regional or local value. Note: Criteria for selection and prioritisation of conservation-worthy geological	0	1	GeoPreservationValue	
2.2 1	geoPreservationIntervention	interventions which diminish the conservational value and	0	1	CharacterString	

		the adventure value For example: Interventions such as sand and gravel deposits, existing land use, etc				
2.2 2	geoPreservation MainContent	most important geological registration or observation at the location or in the area. Note: technical terms for the most important geological registrations/observations at the location or in the area. For example: Moraines, (kame deltas/ice lake terraces), deltas, up/down criteria in pillow lava, loosening rock by heating	0	1	CharacterString	
2.2 3	geoPreservation Type	the type of conservation the object is subject to Note: Different legislation and restrictions	0	1	GeoPreservationType	
2.2 4	geoPreservation Publicity	initiative to give publicity to the GeoConservation-Worthy feature or area Note: Actions taken to make the area/attraction known to the public (for example: information centre, information board, brochure, guiding, part of nature trail)	0	1	CharacterString	
2.2 5	geoPreservation Literature	reference to relevant literature	0	1	CharacterString	
2.2 6	Role boundaryGeoDelimLine		0	N	GeoDelimLine	Aggregation
2.2 7	Role extension		0	1	GeoConservationWorthyArea	

1.2.3 Association <<Topo>> GeoConservationWorthyArea-GeoDelimLine

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
3	Association GeoConservation WorthyArea- GeoDelimLine					
3.1	Role boundaryGeoDelimLine		0	N	GeoDelimLine	Aggregation
3.2	Role (unnamed)		0	1	GeoConservationWorthyArea	

	GeoConservation WorthyArea					
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1.2.4 Association <<Topo>> GeoConservationWorthyObj-GeoDelimLine

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
4	Association GeoConservation WorthyObj- GeoDelimLine					
4.1	Role boundaryGeoDeli mLine		0	N	GeoDelimLine	Aggregation
4.2	Role (unnamed) GeoConservation WorthyObj		0	1	GeoConservationWorthyObj	

1.2.5 Association GeoConservationWorthyObj-GeoConservationWorthyArea

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
5	Association GeoConservation WorthyObj- GeoConservation WorthyArea					
5.1	Role extension		0	1	GeoConservationWorthyArea	
5.2	Role (unnamed) GeoConservation WorthyObj		0	N	GeoConservationWorthyObj	

1.2.6.1 <<CodeList>> GeoPreservationThematicType

Nr	Code name	Definition/Description	Code
1	CodeList GeoPreservationThematicType	which geological thematic type is preservation-worthy Note: Which preservation-worthy geological thematic types (bedrock, quaternary geol., mineral occurrence., etc.) exist in the area	
1.1	Quaternary geology (in generally)		1
1.2	Bedrock geologiyl (generally)		10
1.3	Fossils		11
1.4	Structures		12
1.5	Ore (generally)		20
1.6	Old mine		21
1.7	Iron		22
1.8	Old ore claim		23
1.9	Mineral deposit (generally)		30
1.10	Cave		40

1.2.6.2 <<CodeList>> GeoPreservationBoundaryType

Nr	Code name	Definition/Description	Code
2	CodeList GeoPreservationBoundaryType	criterion for delimitation of a preservation worthy object	
2.1	Boundary with a final demarcation - conservation area		91
2.2	Proposed boundary - conservation area		92
2.3	Boundary with approximate demarcation - conservation area		93
2.4	Boundary with an approximate demarcation feature used for arealin planning		94

1.2.6.3 <<CodeList>> GeoPreservationCaseStatus

Nr	Code name	Definition/Description	Code
3	CodeList GeoPreservationCaseStatus	how far the preservation case has progressed in the administrative process	

3.1	The area has been granted permanent conservation status	act relating to nature conservation	1
3.2	Area proposed for conservation	act relating to nature conservation	2
3.3	Area that might be proposed for conservation		3
3.4	Area should have a sort of protection status in the municipal land-use plan		4

1.2.6.4 <<CodeList>> GeoPreservationType

Nr	Code name	Definition/Description	Code
4	CodeList GeoPreservationType	what type of preservation the object is subject to Note: Distinguishes between the relevant types of preservation falling under different legislation and restrictions.	
4.1	Protected pursuant to the Nature Conservation Act	nature reserve, natural monument or landscape protection area	1
4.2	Located in an area which is protected pursuant to the Nature Conservation Act	located in national park, landscape protection area or nature reserve	2
4.3	Area protected through the Planning Act	zoning plan or other plan	3
4.4	Other protective/conservation action exist	administrative or private	4
4.5	No protective or conservation action taken		5

1.2.6.5 <<CodeList>> GeoPreservationValue

Nr	Code name	Definition/Description	Code
5	CodeList GeoPreservationValue	whether the object is of international, national, regional or local value. Note: Criteria for selection and prioritisation of preservation-worthy geological objects (priority group)	
5.1	The area is one of the IUGS GEOSITE areas		1
5.2	Highly conservation-worthy areas of major national or international significance	the areas are difficult to replace by other alternatives	2
5.3	Highly conservation-worthy areas of	in some cases, alternative areas can be found near-by, but these are seldom of quite the	3

	regional significance	same value.	
5.4	Conservation-worthy areas of more local significance	the locations are normally selected from several of comparable geological interest. Shape, origin and endangerment are factors which are assessed in the selection process	4
5.5	Geological valuable locality, mainly of local significance	these should be given consideration in the municipal land-use plan	5