

UNESCO World Heritage List
VIKING AGE SITES IN NORTHERN EUROPE

Vestfold ship burials

Management plan 2012–2016



Prepared by the working group for World Heritage status for Vestfold ship burials

Author 2011 edition: Kjersti Løkken, Vestfold County Authority

Revised edition (autumn 2013): Herdis Hølleland, Vestfold County Authority

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PREFACE

The Management Plan for the *Vestfold ship burials* has been prepared in conjunction with the World Heritage nomination of *Viking Age Sites in Northern Europe*. If the nomination is successful, the current management plan will be replaced by a second-generation management plan in keeping with UNESCO's routines for monitoring and periodic reporting.

The component part of *Vestfold ship burials* consists of the archaeological sites of the Borre mounds, the Oseberg mound and the Gokstad mound. Together with the *Hyllestad Quernstone Quarries*, the *Vestfold ship burials* constitute the Norwegian component parts of the transnational, serial nomination *Viking Age Sites in Northern Europe*. Altogether the transnational, serial nomination incorporates five countries with seven component parts that together shed light on the Viking Age as the transition between politically unstable chiefdoms to early states. The preparation of the nomination dossier has been coordinated by an Icelandic secretariat in co-operation with each of the five States Parties. In Norway, the Directorate for Cultural Heritage, on behalf of the Ministry of Climate and Environment as the State Party, has served as the national point of coordination.

Representatives from the municipalities of Horten, Tønsberg and Sandefjord, the Directorate for Cultural Heritage, Vestfold County Authority and the Vestfold County Museums have served on the working group preparing the management plan. Vestfold County Authority has chaired the working group and the first edition of the management plan was written by the World Heritage Coordinator Kjersti Løkken. Following the new strategy document *Ny, helhetlig verdensarvpolitikk*¹ (MoE 2012) and the White Paper *Framtid med fotfeste*² (MoE 2012-2013), the management plan was revised in order to comply with new national standards.

The management plan is part of the official annex to the nomination dossier, and constitutes the most important management tool for the preservation of the proposed Outstanding Universal Values described in the nomination dossier.

Tønsberg, October 2013



Per Eivind Johansen

Chairman of the County Council

¹ There is no approved English translation available. A tentative translation reads: "A new holistic approach to World Heritage politics".

² There is no approved English translation available. A tentative translation reads: "Future with a strong foothold".

DECLARATION OF INTENT

All administrative levels responsible for the management of the nominated sites in Norway have signed a Declaration of Intent³ in which it is stated that:

In connection with the preparation of the application for inscription on the World Heritage List, the municipalities of Horten, Sandefjord, Tønsberg and Hyllestad as well as Sogn og Fjordane and Vestfold county authorities and county governors together with the Directorate for Cultural Heritage, the Norwegian Environment Agency and the Ministry of Climate and Environment are in agreement on the following:

- *The intention of the World Heritage nomination Viking Age Sites in Northern Europe is to protect, preserve, disseminate and transfer to future generations the Outstanding Universal Value the sites represent.*
- *The Norwegian component part in the nomination shall help to strengthen local identity and contribute positively to experiencing the values of the cultural environments and to developing social and business activities in the municipalities.*
- *The sites shall be included in the active dissemination of World Heritage values, and the scientific values will form the basis of knowledge production through national and international research and professional network building.*
- *The Hyllestad Quernstone Quarries and the Vestfold ship burials shall be managed in accordance with national legislation and the intentions of the World Heritage Convention. A key objective is to achieve best practice in the management of cultural heritage and to represent Norway in a worthy manner in the transnational nomination and on the World Heritage List.*
- *A Norwegian World Heritage council will be set up for the Hyllestad Quernstone Quarries and the Vestfold ship burials. The council will ensure the joint management of the World Heritage values and will promote the use of World Heritage Site status in the best interests of the local communities.*
- *Norway will participate actively in the international management of the serial nomination Viking Age Sites in Northern Europe.*

As part of the nomination process, an interim council has been established, consisting of representatives of Vestfold and Sogn og Fjordane county authorities, Horten, Tønsberg, Sandefjord and Hyllestad municipalities as well as the Directorate for Cultural Heritage. The council includes members representing both the political and administrative units.

³ For the complete text, see Annex IV.

TABLE OF CONTENTS

1 Introduction.....	1
1.1 Descriptions of the <i>Vestfold ship burials</i>	1
1.1.1 Delimitation of the nominated sites and their proposed buffer zones	2
1.1.2 Research and conservation history	4
1.1.3 History of ownership	9
2 Potential Outstanding Universal Values	10
2.1 Proposed statement of Outstanding Universal Value	11
2.2 Potential Outstanding Universal Values and the <i>Vestfold ship burials</i>	15
3 Impact assessment.....	16
3.1 Natural disasters and emergency preparedness	17
3.2 Climate change.....	18
3.3 Infrastructural development pressures	18
3.4 Pressure from visitors and tourism	19
3.5 Other challenges.....	20
3.5.1 Impact of agriculture	20
3.5.2 Regrowth	20
3.5.3 Other factors.....	21
4 Visions and goals	21
4.1 Main goals	21
4.2 Sub-goals	21
4.3 Measures	21
5 Instruments of management	22
5.1 Legal protection/legislation.....	22
5.1.1 International conventions and charters	22
5.1.2 National legislation.....	23
5.1.3 Regional and local plans and instruments	25
5.2 Sources of finance.....	27
5.2.1 National schemes	27
5.2.2 Regional and local schemes	27
5.3 Care and maintenance of the nominated areas	28
5.3.1 Borre.....	28

5.3.2 Oseberg.....	29
5.3.3 Gokstad.....	29
5.4 Access and on-site amenities	29
5.4.1 Access and information along the main routes of communication	29
5.4.2 On-site infrastructure and amenities for visitors	29
5.5 Knowledge production and knowledge-based dissemination.....	31
5.5.1 World Heritage knowledge and dissemination	31
5.5.2 Vestfold ship burials' cultural history.....	31
5.6 Tourism Potential	32
6 Monitoring and evaluations	32
6.1 Planned measures	32
6.2 Unpremeditated changes over time.....	33
6.3 Emergencies.....	33
6.4 Earlier reviews.....	33
7 Revision of the management plan	33
8 Administrative division of responsibility.....	33
8.1 International level	33
8.2 National level.....	34
8.3 Regional level	35
8.4 Local level	35
8.5 Available expertise.....	35
9 Action Plan 2012-2016	36
9.1 Joint measures within the Action Plan.....	36
9.2 Measures within the action plan framework, Borre mounds.....	38
9.3 Measures within the action plan framework, Oseberg mound.....	39
9.4 Measures in the action plan framework, Gokstad mound	40
Bibliography.....	41
Online sources.....	44
Lists of maps and photos	47
List 1 Maps	47
List 2 Photos.....	48
Annex I Maps	52
Annex II Photos.....	68
Annex III Extract from plans of maintenance	88

Extract from	89
<i>Overall plan for Borre Park 2007 – 2015</i>	89
Extract from	107
<i>Plan of maintenance of Oseberg archaeological site and heritage trail</i>	107
Extract from	110
<i>Plan of maintenance of Gokstad archaeological site</i>	110
Annex IV Declaration of Intent.....	114

LIST OF TABLES

Table 1 The size of the nominated areas and buffer zones (in hectares).	2
Table 2 Archaeological excavations and surveys of the <i>Vestfold ship burials</i>	8
Table 3 The legal protection of the <i>Vestfold ship burials</i>	9
Table 4 Owners of the <i>Vestfold ship burials</i> (2013).	10
Table 5 Indicators of the state of the property.	17
Table 6 Numbers of inhabitants in the nominated areas and buffer zones.	18
Table 7 Annual visits (2012). Figures the cultural rucksack, organised visits and paying visitors to midgard are based on actual figures. Other figures are estimates.	20
Table 8 Status for regional plans.	26
Table 9 Annual care and maintenance (2011).	28

1 INTRODUCTION

The *Vestfold ship burials* is one of seven component parts which make up the transnational, serial World Heritage nomination of *Viking Age Sites in Northern Europe*. In addition to *Hyllestad Quernstone Quarries* in Norway, the remaining component parts are Jelling and the Trelleborg Fortresses in Denmark, Hedeby and Danvirke in Germany, Pingvellir in Iceland and Grobiņa in Latvia. Each site has its own management plan which serves as a working tool for local, regional and national heritage managers. This is the first joint management plan for sites of Borre, Gokstad and Oseberg which constitute the component part of *Vestfold ship burials*.

New Norwegian World Heritage management plans are to provide a comprehensive overview of relevant legal frameworks, local and regional landscape plans, management systems as well as the dissemination of the site's Outstanding Universal Values. The current management plan was first drafted in 2011 and finalized in November that year. The plan was revised in the autumn of 2013. The revised plan follows the recommended structure described in *Ny, helhetlig verdensarvpolitikk* and the guidelines of the White Paper *Framtid med fotfeste*. As the current management plan can be regarded as a first generation plan, a somewhat more detailed description of the *Vestfold ship burials* is provided. The rest of the plan does, however, follow the standard for new Norwegian World Heritage management plans. Chapter 2 describes the Outstanding Universal Values of the *Viking Age Sites in Northern Europe* and more specifically the *Vestfold ship burials*. In the following chapter, factors which may impact the Outstanding Universal Values of the ship burials are presented. Chapter 4 sets out the overall management visions and goals aimed to secure the preservation of the Outstanding Universal Values. In Chapter 5 the measures taken in order to preserve the ship burials are outlined and chapter 6 describes the processes of monitoring and evaluating the sites' state of conservation. The following chapter briefly describes the procedures for renewing the management plan and chapter 8 gives an overview of the agencies involved in the management of the *Vestfold ship burials*. The final chapter draws up an action plan for the tasks to be completed during the period of management (2012-2016). A comprehensive list of literature on the *Vestfold ship burials* is attached to the management plan.

1.1 DESCRIPTIONS OF THE *VESTFOLD SHIP BURIALS*

Vestfold ship burials consists of three archaeological sites: The Borre mounds in Horten municipality, the Oseberg mound in Tønsberg municipality and the Gokstad mound in Sandefjord municipality (see Annex I, Map 1: Overview of *Vestfold ship burials*). There are approximately 30 kilometres from the Borre mounds in the north to the Gokstad mound in the south and the three sites are all located along the most important prehistoric routes of communication: The Oslo fjord and end moraine of Raet (see Annex I, Map 02: The Scandinavian end moraine (Raet)). Furthermore, all three sites consist of one or more burial mounds where the deceased were laid to rest in a ship, thus the classification of 'ship burials'.

1.1.1 DELIMITATION OF THE NOMINATED SITES AND THEIR PROPOSED BUFFER ZONES

The nominated sites of Borre, Oseberg and Gokstad consist of a smaller nominated area and a larger buffer zone. The proposed boundaries aim to ensure the integrity of the larger cultural landscape in which the ship burials are located. As a result, the buffer zones include other known cultural heritage sites. However, it has not been possible or desirable to draw boundaries which include all the known, protected monuments and sites in nearby cultural landscape (see Annex I, Map 03: Protected heritage sites and monuments in Slagendalen and Map 04: Protected heritage sites and monuments around Gokstad).

TABLE 1 THE SIZE OF THE NOMINATED AREAS AND BUFFER ZONES (IN HECTARES).

Site	Nominated area	Buffer zone
Borre mounds	52.4	323.6
Oseberg mound	13.2	273.6
Gokstad mound	27.9	43.2
Total	93.4	640.4

Borre mounds

The Borre mounds are situated in the municipality of Horten approximately four kilometres south of the centre of the town of Horten. To the north of Horten the landscape is steep and inaccessible with cliffs plunging into the sea. The fan-shaped Borreskåla is situated on the southern side of the lake of Borrevannet, west of the Scandinavian end moraine of Raet. From the top of the moraine, the terrain falls towards the sea to the east. Along the coast between Horten and Tønsberg the land inclines gently down to the fjord with shallow, gradually sloping beaches. Coastal terraces representing the old shorelines are a clear feature of the terrain. The vegetation is luxuriant with a large element of noble hardwood trees.

The nominated area comprises 52.4 hectares. The Borre Park and the surrounding area were protected by the Ministry of the Environment (predecessor of the Ministry of Climate and Environment) in 1990. At present there are around 50 registered mounds and cairns. A possible harbour and the remains of three long houses have been discovered during recent geophysical surveys (see Annex I, Map 05: Overview of the mounds of Borre and the possible harbour area). Towards the south, the boundary of the nominated area follows a minor road while to the north the boundary follows the border of the protected area. The western boundary skirts Midgard Historical Centre, Borre rectory and Borre Church and graveyard while the sea forms a natural boundary to the east (see Annex I, Map 06: Nominated area and proposed buffer zone and Annex II, Photo 01: Borre. The nominated area and the sea).

The proposed buffer zone covers 323.6 hectares. For the most part, the eastern boundary follows the shoreline and the western boundary the end moraine of Raet. Towards the south and the north the urban sprawl of the towns of Åsgårdstrand to the south and Horten to the north marks the edge of the buffer zone. There are buildings in the buffer zone – agricultural holdings, dwelling-houses and leisure buildings as well as a camp site and a marina. The medieval Borre Church with the adjoining churchyard and rectory are also situated within the buffer zone. To the north there are several recorded, undated burial sites in a woodland area while the buffer zone skirts an area that is regulated as a business park. The protected nature reserve of Fjugstad is located within the proposed buffer zone (see Annex I, Map 06: Nominated Area and proposed buffer zone and Annex II, Photo 02: Borre. The nominated area and proposed buffer zone).

Oseberg mound

The Oseberg mound in the valley of Slagendalen is located in the municipality of Tønsberg approximately three kilometres north of the town centre of Tønsberg. Most of the cultivated land at Slagen lies on post-glacial silt and clay sediments, possibly formed by erosion and leaching from the moraine which is in close proximity. A fault divides the valley in two, running from north to south. Between them there are ridges with hilly terrain. Along the valley floor, streams flow before converging at Slagen Church.

The nominated area is 13.2 hectares. It can be divided into the mound itself and the surrounding parkland, partly demarcated by a stone wall, roughly one hectare altogether. The mound and a security zone of five metres are protected pursuant to the Cultural Heritage Act. Otherwise the nominated area consists of open agricultural land with a stream flowing westwards along the valley floor where the boundary lies west of the stream. The belt of vegetation was included to protect the visual experience of the Oseberg mound. Towards the north, the edge follows the existing property boundary and to the east the dividing line between cultivated land and forest (*see Annex I, Map 07: Nominated area and proposed buffer zone of Oseberg and Annex II, Photo 03: Oseberg. The nominated area*).

The proposed buffer zone covers 273.6 hectares and includes both agricultural properties and dwelling houses. The proposed demarcation partly follows established roads and partly the hilly terrain to the east. Towards the west the boundary partly follows a road and to the northwest the ridgeline. Slagen Church, originally a medieval church, and the churchyard are situated within the proposed buffer zone. Otherwise there are a number of recorded and protected cultural monuments and sites in the area (*see Annex I, Map 07: Nominated area and proposed buffer zone of Oseberg and Annex II, Photo 04: Oseberg. The nominated area and the buffer zone*).

The Oseberg mound lies at the lowest point of the valley, with no visual contact with known monuments and sites. Relatively far from the sea, and with no identified roads from the Viking Age in the vicinity, its location clearly differs from that of the other large mounds. At present there is no clear explanation for this its unusual location.

Gokstad mound

The Gokstad mound is situated in the municipality of Sandefjord about three kilometres north of the town centre of Sandefjord. Situated on a plain, in an open agricultural landscape surrounded by steep slopes and hills, the Gokstad mound is clearly visible in the landscape. Towards the west and northwest, modern houses and villas form the natural boundary of the Gokstad plain and the surrounding hilly terrain.

The nominated area is 27.9 hectares. The area includes the mound itself, the small park surrounding the mound along with the Viking settlement and harbour of Heimdal. The mound and its protection zone of five metres is automatically protected pursuant to the Cultural Heritage Act. The area on the inside of the stone wall is 1.4 hectares and consists of a grassy wild flower meadow with a few trees surrounding a memorial erected in 1928. Outside the stone wall, the nominated area is made up of cultivated fields. The national road 303 goes in an east-west direction immediately south of the stone wall. Towards the south-southeast, the nominated area is delimited by the existing residential area and the boundary continues across cultivated land to the Viking Age shoreline. Here the remains of the stream, which the ship was once hauled

up, and the Viking settlement of Heimdal are included. Towards the west, the boundary follows the existing buildings and partly today's road and railway line. Towards the north, the nominated area is delimited south of a transformer station where hills begin to encroach on the open agricultural landscape (*see Annex I, Map 08: Nominated area of and proposed buffer zone of Gokstad and Annex II, Photo 05: Gokstad. The nominated area*).

The proposed buffer zone covers 43.2 hectares and is located along the ridgeline at Gjekstadåsen and Frebergåsen. There are buildings in the buffer zone, both farm buildings and detached houses. A number of recorded/protected cultural monuments and sites are situated within and outside the buffer zone. The demarcation is determined by the experience of the sweepy landscape while to the north and west the boundary follows the road and/or existing railway line. The demarcation has been influenced by the concurring interests of the protection of farmland and cultural heritage (*see Annex I, Map 08: Nominated area of and proposed buffer zone of Gokstad and Annex II, Photo 06: Gokstad. Nominated area and buffer zone*).

1.1.2 RESEARCH AND CONSERVATION HISTORY

Since the mid 19th century the ship burials in Vestfold has been crucially important for the development of archaeology in Norway and more generally the scientific research on the Viking Age. In the following the research and conservation history is presented separately. For further information on the sites history, please use the literature list.

Borre mounds

Research history

In 1851-52 the Norwegian Public Roads Administration was given permission by the landowner to use sand and gravel masses from 'the ship mound' for roadwork purposes (*see Annex II, Photo 07: Borre. Historic drawing*). The mound's name is derived from its content: Ship rivets were found and an archaeological investigation of the remains of the mound was carried out in May 1852 by the archaeologist Nicolay Nicolaysen. He documented the remains of a Viking ship, and was as such the first archaeologist to examine a Viking ship. The finds in 'the ship mound' at Borre have been dated to around 900 AD and the design of the harness gave rise to notion of the *Borre style*. The Borre style is characterised by ring-shaped patterns with geometrical figures, knots and bows, and typically used from about 850 AD to the late 900s. Objects in the Borre style are found over large parts of Northern and Eastern Europe (*see Annex II, Photo 08: Horse collar from Borre*).

Since Nicolaysen's first documentation of 'the ship mound', several archaeological excavations and surveys have been carried out at Borre: 1) In 1927 Bjørn Hougen & Eivind Engelstad (1927) partially excavated some of the smaller mounds of the complex (*see Annex II, Photo 09: Borre excavation, 1927*); 2) In 1960s and 1970s Aslak Liestøl (1965, 1975) surveyed the area and produced the hitherto most comprehensive map of Borre (*see Annex II, Photo 10: Borre. Map: Aslak Liestøl, 1973*); 3) In 1978-1979 Professor Sverre Marstrander surveyed the Spellemann's mound prior to its restoration; 4) Between 1988-1992 Professor Bjørn Myhre directed the Borre Project which surveyed the areas within and outside the Borre Park in order to locate the settlement associated with the burial ground. Myhre also re-excavated the site of 'the ship mound' (Myhre 1992a, 1992b, 1994, 2003, 2004, in prep; Myhre & Gansum 2003; Jerpårsen 1996: 160); 5) In 2007 the Swedish National Heritage Board (UV-Teknik) conducted geo-radar surveys on behalf of Vestfold County Authority and detected postholes belonging to two hall

buildings located just outside the gate of the Borre Park (Trinks 2007; Gansum 2009); 6) In 2009 a new geo-radar survey was carried out by the 3D-Radar firm and the Norwegian Institute for Cultural Heritage Research which confirmed the discovery of the hall buildings; 7) In 2013 a large-scale winter geo-radar survey was carried out by the Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology revealing a third and even larger longhouse in the field between the Borre Park and Borre church and a possible man made harbour (*see Annex II, Photo 11: Geophysical survey at Borre*).

Conservation history

The Borre Park held a central position when the national history of Norway was drawn up in the early 20th century. It was in particular Professor Anton Wilhelm Brøgger who linked the burial mounds at Borre to the Skaldic poem of Yngligatal, arguing that Borre was the residence for the later generation of the Ynglinga lineage (Brøgger 1916). Thus Brøgger regarded Vestfold as the cradle of early Norwegian state formation and using this interpretive basis, Brøgger proposed that the burial field of Borre should become a protected park. In 1932 his vision became a reality, and the park was named "The National Park". Several mounds were cleared prior to the opening of the park in 1932, albeit in the absence of financial resources and plans for regular care, vegetation soon came to dominate the area again.

During the period 1935-1944 the park was used as an assembly for *Nasjonal samling*⁴ and in the early post-war period the park fell into disuse. In the 1950s livestock grazed there for a period of ten years. However, by the 1960s the first discussions on removing the dense forest were taken by curator Aslak Liestøl 1965. It was not until 1969 that the plans were approved by the supervisory board for the Borre Park and then implemented in 1973. Care and maintenance plans were drawn up in the 1990s, and in 2007 the county council adopted the *Overall Plan for Borre Park 2007-2015* that sets out a strategy for the care and maintenance of the park and permanent funding of the initiative (an extract from the *Overall Plan* is provided in Annex III).

Oseberg mound

Research history

Up to the time of the excavation in 1904 the Oseberg mound was well preserved. Soil masses were, however, reported to have been used at Slagen churchyard after which the height of the mound had been reduced to approximately 2.5 metres. Towards the end of the 1800s Johannes Hansen, a former tenant farmer at the farm of Øde Oseberg, is said to have dug into the mound without reporting any finds. The next person to attempt to open the mound was Paal Roberg in 1897-1898. Roberg is said to have dug down to large wooden structures. Finally, in the period from 3-7 August 1903, the farmer Oskar Rom dug into the Oseberg mound. He found an object that proved to be a decorated part of a harness for a sleigh. This was delivered to Professor Gabriel Adolf Gustafson at the University's Collection of National Antiquities on 8 August 1903. Gustafson carried out trial excavations after which it was decided to excavate parts of the mound the following year. The archaeological excavation was conducted between 13 June and 1 November 1904 (*see Annex II, Photo 12: Oseberg excavation, 1904*) and the material was transported by boat from Åsgårdstrand to Christiania (Oslo) between 27 August and 17 December 1904.

⁴ "National Unity" – i.e. Norway's national socialists' party.

In addition to the ship, the find included the remains of two women buried in the mound and a large collection of objects and grave goods. The ship itself has been dendrochronologically dated and was built in 820 AD of timber from southwest Norway and was 14 years old when it was used as the burial ship in the mound in 834 (*see Annex II, Photo 13: Oseberg ship*). Furthermore, also at Oseberg traces of distant grave robbers were discovered during the excavation.

Also the finds from the Oseberg mound gave rise to style: the *Oseberg style*. The style is characterised, by the stylised animal figures – partly rendered in a naturalistic manner and is considered to be predecessor of the Borre style, being in use from the mid-700s to the mid-800s. The style is based on the animal ornamentation of the Iron Age and was especially widespread in eastern Norway and Sweden. It is in particular prevalent on the Oseberg ship's prow and stern as well as the carts and sledges (*see Annex II, Photo 14: Sledge from Oseberg and Photo 15: Cart from Oseberg*).

Based on the skeletal remains, the grave was first thought to have belonged to Queen Åsa (the mother of Halvdan Svarte and the paternal grandmother of King Harald Hårfagre) and her female servant. Interpretations of the place name supported this theory. Later interpretations have linked the find to heathen worship; the older woman considered to be a priestess. Newer research have revealed that the older woman was approximately 80 years of age, while the younger is estimated to have been about 50. The former had a hormonal disease (Morgagni's syndrome) that leads to overweight and reduced production of female sex hormones. She also had advanced cancer and represents the oldest recorded case of cancer in Norway.

Conservation history

THE RESTORATION OF THE OSEBERG MOUND

The Vestfold local history association was founded in 1923, and at the annual meeting in 1925 the association resolved to take the lead in the restoration of the Oseberg mound. The association together with the Slagen and Vestfold Societies of Rural Women were important actors in the restoration of the mound from the 1920s up to the inauguration in 1948.

In the 1920s and 1930s several different proposals were launched regarding the design. The most comprehensive plan from 1929 included the damming up of the Oseberg stream and an approach road to the mound in addition to its restoration. However, a lack of funding made the realisation of the plans difficult. In 1946 the senate of the University's Collection of National Antiquities gave permission to return the skeletal material. In 1947 large amounts of earth were removed from the vicinity of the stream to restore the mound and a sarcophagus in red granite was placed there. The skeletal fragments of the two women were placed in the mound on 16 August 1948. They were then encapsulated in an aluminum coffin that was placed in a stone sarcophagus. Crown Prince Olav undertook the official inauguration of the memorial on 29 August 1948.

No further excavations have been conducted since. However, in 1925 the Vestfold local history association decided restore the mound. The restored mound was opened in 1948 and the skeletal remains re-buried (see details in text box). In 2007 skeletal remains were removed as a means to secure future preservation and research of the remains (*see Annex II, Photo 16: Reopening of Oseberg*).

The care and maintenance of Oseberg has varied through time. During the 1950s the area around the mound was not tended on a regular basis resulting in an overgrown landscape in which the mound was hardly visible. However, in 1957 the Vestfold Society of Rural Women took the initiative to erect a memorial stone. Covering the costs of the work themselves, the memorial was unveiled on 25 June 1961. At the same time Professor O. Aspesæter of the Agricultural University of Norway prepared a

proposal for the planting of the area. However, the idea was rejected by the Collection of National Antiquities who wanted there to be an open area around the mound. During this period,

the area was tended on a voluntary basis by those living in the neighbourhood who cut and burnt the grass every spring and autumn. In 1971 the Slagen Society of Rural Women took the initiative to preserve the mound and its surroundings on a more permanent basis. In the course of time the mound was enclosed by a stone wall to the north, east and south while the Oseberg stream marked the border to the west. The work was completed in 1972 and at the same time the area was levelled and grass was planted, while bushes were planted along the stream and the car park was enlarged. A contract was entered into with Sem municipality regarding the maintenance of the site, and this was later transferred to Tønsberg municipality when the two municipalities were merged. In 1998 information boards were erected along the path leading from the car park up to the mound in cooperation with Vestfold county authority.

Gokstad mound

Research history

For long, the Gokstad mound was commonly referred to as *Kongshaugen* (King's mound) and local people anticipated that a king, equipped with horse and ship, was buried there. In February 1880 two young men at the farm set out to test the theory. Archaeologist Nicolay Nicolaysen was notified of the men's undertakings and the landowner agreed to postpone the excavations until following summer. From June to August 1880 Nicolaysen carried out the excavation of the Gokstad mound. Originally Nicolaysen believed that the best solution was to excavate the entire mound. However, due to the scope of the work, the financial situation and the uncertainty as to whether it really was a burial mound he decided to dig a 2.5 metre wide shaft from the south side of the mound into the centre. The ship lay in the projected shaft and it was only necessary to enlarge this to the width of the ship in order to remove it for future preservation (*see Annex II, Photo 17: Gokstad excavation, 1880 and Photo 18: Gokstad excavation, 1880*).

In addition to the Gokstad ship, the deceased man was laid to rest with three smaller vessels, 12 horses, seven dogs, a pair of goshawks, two peacocks and a wealth of grave goods, including textiles and rigging. The Gokstad ship has been dendrochronologically dated to ca. 895 AD and was approximately ten years old when it was placed in the mound in ca. 905. The excellent state of preservation ensured that archaeologists for the first time gained a sound understanding of the appearance of a Viking ship and its methods of construction, its sails, oars and rudder (*see Annex II, Photo 19: Gokstad Ship at the Viking Ship Museum and Photo 20: Burial chamber and small boats from Gokstad*).

Furthermore, the excavation revealed that the mound had been opened prior to the excavation: Both the human remains and the grave goods had been moved around and the ship damaged. Using dendrochronology, researchers have been able to date the spades used to open the mound and thereby determine that the mound was first opened sometime between 953 and 1050, most likely during the late 10th century (Bill & Daly 2012).

Traditionally Olav Geirstadalv was thought to have been buried in the Gokstad mound, an interpretation supported by sagas and skaldic poetry. However, new research on the skeletal remains has shown the remains belonged to a far younger man than Olav Geirstadalv. The man was around 40 years old when he died under in dramatic circumstances; the cause of death being sword and stab wounds.

The nominated site also includes the Viking settlement of Heimdal and a burial field along the Viking Age shoreline, ca. 400 metres south of the Gokstad mound. Heimdal was first discovered in 1995 by the archaeologists at Vestfold County Authority and through the research project of *Gokstad revitalized* (2011-2014) the settlement of Heimdal has been excavated and the landscape around the Gokstad mound has been further surveyed and the research on the skeletal remains continued.

Conservation history

RESTORATION OF THE GOKSTAD MOUND

In 1919 the Vestfold branch of the Society for the Preservation of Ancient Norwegian Monuments raised the issue of the restoration of the Kongshaugen mound at Gokstad. From 1923 onwards the newly founded Vestfold local history association also gave its support, while the University represented by the Collection of National Antiquities did not consider that they had a role in such work. However, Professor Brøgger showed his keen personal interest by contacting local shipowners who made funding for the project available. In 1925 a draft made by the architect Carl Berner was approved. The work to restore the mound consumed approximately 2,000 cubic metres of earth. On 17 June 1928 a lead coffin containing the skeletal remains was transferred to a stone sarcophagus and placed in the mound. The official inauguration was carried out by King Haakon on St. Olaf's Day (29 July) in 1929. Between 10.000-12.000 people attended the ceremony.

The mound was re-excavated in 1902 and more of the mound's construction was documented. In the decades following the excavations, the area around the mound was used as grazing land for livestock and for the cultivation of potatoes. However, in 1928 the mound was reconstructed and the skeletal remains returned to the mound (see details in the text box). The restoration was completed in 1929 and a small memorial park was opened. Sandehered/Sandefjord municipality, partly helped by the local history association and the Society for the Preservation of Ancient Norwegian Monuments, has been responsible for the maintenance of the mound. In 1994 the area was upgraded and extended in 1994 and was tended by Sandefjord municipality and in 2007 the skeletal remains were removed to

ensure their future preservation and research.

Briefly summary

The tables below provide an overview of the history of research and surveys (table 3) and history of conservation (table 2) of the *Vestfold Ship Mounds*.

TABLE 2 ARCHAEOLOGICAL EXCAVATIONS AND SURVEYS OF THE VESTFOLD SHIP BURIALS.

Event	Borre mounds	Oseberg mound	Gokstad mound
Main archaeological excavation	1852	1904	1880
Later archaeological investigations	1927, 1978/79, 1988-1992, 1994		1902, 1994, 1995
Significant finds	1852, 1927, 1989, 2007	1904	1880, 1995
Research / documentation project	1988-1992	2003-2009	2011 (-2014)
Geo-physical survey	2004, 2007, 2009, 2012, 2013		2007, 2009, 2011
Aerial photography	1988, 1992/93, 2011	1992, 2011	2011
Lidar scanning	2008		2008
Reopening, removal of skeletal fragments		2007	2007

TABLE 3 THE LEGAL PROTECTION OF THE VESTFOLD SHIP BURIALS.

Event	Borre mounds	Oseberg mound	Gokstad mound
Automatically protected area	1905	1905	1905
Restoration		1947	1928
Protection of the area	1990		
Park demarcation	1932	1972	1928, 1995
Information boards	1992, 2013	1998	1928, 1995
Overall plan for maintenance	2007	2013	2013

1.1.3 HISTORY OF OWNERSHIP

The following section gives a brief overview of the past and present ownership situation at each of the three nominated sites.

Borre

The owners of the properties where the Borre mounds stand were the State, represented by Borre rectory, and the owner of Sem farm in Borre, Dr Sam Eyde. In 1917 Professor Brøgger submitted a proposal to the then Ministry of Church and Education regarding the protection of the complex. A lease agreement was signed between Borre rectory and the University of Oslo in December 1920. The archaeological authorities – the University’s Collection of National Antiquities – were given certain powers over a plot measuring approximately 65 decares in Strandskogen which was part of the forest belonging to the Borre rectory, known as Gravhaugparsellen (burial mound plot). Regulations for the park were adopted by the county council in 1937. The Borre mounds were passed into the care of Vestfold county in 1948. Today it is Vestfold County Authority that leases the area.

Oseberg

At the time of the excavation, the land belonged to Oscar Rom and rather than ownership of the mound itself, there protracted negotiations regarding the ownership rights to the find. Tønsberg municipality tried at one time to acquire the property rights. In 1904 funding was raised locally to keep the Oseberg find in the Tønsberg area. The local authority in Tønsberg and the county council for Jarlsberg and Larvik both approached the Ministry but without success. Gustafson deemed that the right to the finds should accrue to the Collection of National Antiquities/University of Oslo, while the property owner on his part demanded that the price should be set by the market by means of an auction.

In May 1904 an Act was passed forbidding the export of cultural heritage material from Norway. This was intended to prevent the export and sale of the priceless historical material. The matter was settled when landowner Fritz Treschow made 12,000 kroner available and bestowed the Oseberg find on the Norwegian State. The final contract with landowner Oskar Rom was signed in Christiania on 5 November 1904. In the end Oscar Rom received 11,500 kroner as a cash settlement. As a result of the Oseberg dispute, a new Heritage Act, clarifying that the State had legal rights to antiquities found in the ground, was passed during the summer of 1905.

In the division of land proceedings in 1927, three private owners took over the property rights to the mound itself and to a four-metre wide road, on condition that the property was

transferred to the Vestfold History Association. The final transfer to the history association took place in 1934. When the area was to be upgraded in 1971, Tønsberg land court stipulated the land belonging to Vestfold History Association to be 1.02 hectares plus 0.049 hectares set aside for the road. Today it is the Vestfold History Society the owner of the mound and its surrounding park.

Gokstad

At the time of the excavation the Gokstad mound was registered under the farm of Gokstad Nedre. Nicolaysen, however, stated that the property rights to the mound were divided between two farms. The ownership conditions were not well documented but it was a prerequisite for the excavations that there would be no costs for the landowners. There was, however, considerable debate about whether the ship should be preserved *in situ* or moved to Christiania. Locally *in situ* preservation was favoured. However, the decision to move the ship to Christiania was made by the board of directors of the Society for the Preservation of Ancient Norwegian Monuments on 12 June 1880.

While the ownership conditions were unclear at the time of excavation, it is likely that the property rights to the now protected area had been transferred to Sandeherred – later Sandefjord municipality – before 1929. In 1994 the purchase of additional areas in order to upgrade the park was financed by private individuals who donated the newly acquired area to Sandefjord municipality so that the area today covers 1.4 hectares.

Present ownership

As the table 1.4 below indicates, at the present the nominated areas are partly in private and partly in public ownership.

TABLE 4 OWNERS OF THE VESTFOLD SHIP BURIALS (2013).

Nominated site	Private ownership	Public ownership
Borre	10%	90%
Oseberg	89%	11%
Gokstad	7%	93%

Today most of the nominated area of Borre is owned by Opplysningsvesnets fond whereas Horten municipality, Vestfold County Authority and some private owners, own smaller sections. The nominated area of Oseberg is owned by Vestfold History Association, Opplysningsvesnets fond and Tønsberg municipality whereas almost all of the nominated area of Gokstad is owned by Sandefjord municipality.

2 POTENTIAL OUTSTANDING UNIVERSAL VALUES

In order to gain World Heritage status, a nominated site or area needs to prove that it is of Outstanding Universal Value (OUV). As a means determine whether a sites has OUV(s), a series of ten criteria have been developed by the World Heritage Committee and Advisory Bodies (for a full overview of the criteria, see the Operational Guidelines, paragraph II.D). A site needs to demonstrate that it meets at least one of the ten criteria. In the following the proposed

justification of the *Viking Age Sites in Northern Europe* is presented before the Outstanding Universal Values are described in relation to the *Vestfold ship burials*.

2.1 PROPOSED STATEMENT OF OUTSTANDING UNIVERSAL VALUE

The following extracts are taken from the nomination dossier's proposed statement of Outstanding Universal Values. The statement of Outstanding Universal Value describes why the nominated site is considered to be of Outstanding Universal Values, how it satisfies the proposed criteria as well as describes its current conditions of authenticity and integrity and finally how its management structures ensures that the Outstanding Universal Values are protected on a long-term basis.

Proposed statement of Outstanding Universal Value

a) Brief synthesis

The serial transnational property Viking Age Sites in Northern Europe is an ensemble of seven component parts, from five States Parties, all of which are monumental archaeological sites or groups of sites dating from the 8th – 11th centuries AD.

During this time, commonly referred to as the "Viking Age", the Norse people travelled from their homelands in Scandinavia – as Vikings – for the purposes of trade, raiding, exploration and the search for new lands to settle. They interacted with pre-existing local populations during the course of their sea voyages eastwards and westwards and thereby also exerted substantial influence on areas outside Scandinavia. The nominated property includes five component parts from the core region of Scandinavia and two North European sites from the area of expansion and interaction.

The Jelling mounds, runic stones and church in Denmark and the Þingvellir National Park in Iceland are World Heritage Sites.

The Viking Age was an important transitional period in Northern Europe which, for the most part, had never been part of the Roman Empire. Made up of a network of politically unstable chiefdoms and petty kingdoms in the 8th century AD, the region became dominated by the formation of Medieval states by the 11th century AD. All the nomination's component parts are located where essential historical actions took place during the Viking Age. These actions have left various physical constructions which illuminate central themes in the making and development of Viking Age societies. The component parts are scientific keys to an understanding of this transition and the concurrent changes in economy, society and religion. This series of sites thereby constitutes an important testimony

relative to the cultural-historical period of the Viking Age in the geo-cultural region of Northern Europe.

The serial property comprises the archaeological remains of a trading town and an assembly site, as well as of harbours, sites of governance, defensive structures, production sites, settlements and burial places, covering the entire duration of the Viking Age. Consequently, the series of sites testifies to the diversity of remarkable material evidence available from the Viking Age, and provides valuable information on the changing societal, economic, religious and political conditions of the time supported by contemporary written sources.

b) Justification for criteria

Criterion iii: bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared.

In the Viking Age, local tribal societies in Northern Europe became an integral part of the civilisation of the European Middle Ages. The development of shipbuilding technology and navigational skills for sea voyages was crucial for the political, religious, social and economic processes of this transition. In the course of this transition, the people of the Viking Age became the first to inhabit the North Atlantic islands of the Faroes and Iceland. They were also the first European people to reach Greenland and even North America in historical times.

The interaction with people and power structures in Europe changed the Scandinavian societies.

Collectively, this series of the seven component parts explains the change in pagan local traditions, the shift in settlement structures and economic concepts and the development of parliamentary traditions and of lasting institutions of power in Northern Europe, characterising the transition to Medieval states, through a remarkable material heritage extending from the 8th – 11th centuries and rendering the ensemble an exceptional testimony to the Viking Age.

Criterion iv: to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.

The migration and the interaction of the Norse with other peoples in Europe led to new architectural expressions and uses of the landscape

which are preserved today as impressive archaeological sites dating from the 8th – 11th centuries.

This series of Viking Age localities consists of archaeological key-sites that illustrate the emergence of Medieval societies and states in Northern Europe during the Viking Age.

It encompasses the archaeological remains of sites of governance with symbolic and religious monuments, assembly sites for deciding legal and political issues, defensive structures such as ring fortresses and border defences, production sites such as quarries, trading towns with harbours, burial places such as ship burials in large barrows and sites of cultural interaction. These types of archaeological sites are distinctive for the Viking Age in their specific form, architecture and layout, use and function and material expression and, as such, bear exceptional witness to this time of transition in Northern Europe.

c) Statement of integrity

All the archaeological sites in this nomination belong to the same cultural-historic group, which is characteristic of the Viking Age in Northern Europe. They cover the entire historical period from the 8th to the 11th century AD. Due to the archaeological nature of the remains, a large number of the sites from the Viking Age have been destroyed over the course of time, whereas others still await detection. This series constitutes a selection of well-preserved Viking Age sites of great historical and scientific value, which are large enough to be able to preserve these values for the future. Together, the component parts complement each other exceptionally well, reflecting different aspects of the transition from tribal chiefdoms to Medieval kingdoms in the Viking Age and therefore serving as “scientific keys” to its understanding.

The borders of the nominated property are defined by the extent of the complete archaeological sites of the component parts. Representing all important historical building phases and structures, the archaeological material and substance, the construction and layout and the situation and setting of these sites are adequately intact in order to convey the significance of each component part and of the property as a whole.

d) Statement of authenticity

The credibility and truthfulness of the evidence for the interpretation of the archaeological sites in this series for the transitional process from tribal societies to Medieval states in the Viking Age is conveyed by the

genuine archaeological material, as well as the construction and layout and the situation and setting of the component parts. All archaeological remains of the nominated property have retained their authentic construction and layout since the Viking Age. The archaeological material and substance of the nominated property is also entirely authentic. All building phases, features and their remains relevant to this nomination date from the Viking Age or are likely to do so. Important topographical conditions and features, which were historically availed of in the choice of site and the layout of the structures, are still recognisable even today. Where recent repairs and restorations have been carried out, these can clearly be distinguished from the historical material and are based on complete and detailed archaeological documentation.

The credibility of the evidence has been corroborated by numerous written sources and extensive research using established archaeological and scientific methods. The theories employed in the interpretation of the sites and of historical processes in the Viking Age are derived from this research and have wide acceptance in the scientific community

e) Requirements for protection and management

The values and integrity of the nominated serial property are managed and safeguarded by management systems on two levels. The integrity and values of the entire serial property are maintained within a transnational management framework, with all States Parties committed to the aims of protecting, preserving, monitoring and promoting the Outstanding Universal Value of the nominated property.

The day-to-day maintenance of all attributes conveying value, integrity and authenticity takes place on the level of the individual component part. The responsibility for the management on this level remains within each State Party.

All component parts and their buffer zones are protected according to the legal systems in place in each State Party. In addition, the majority of sites and areas are owned by public bodies. The various protection and planning mechanisms, and acts which apply directly to the component parts, are sufficient to guarantee the protection and preservation of the Outstanding Universal Value, integrity and authenticity of the whole nominated property and its component parts.

Funding is provided by the participating States Parties or regional government for the Steering Group and the Secretariat, while the funds

for the management of each component part are generally sustained by the responsible States Parties or regional authorities.

A core issue of cooperation among the partners in the serial nomination and beyond is the building of an active network between Viking Age key sites and their stakeholders which will improve management, conservation, communication and monitoring of the Viking Age heritage on an international level. Among the main tasks for this network will be to improve the overall parameters for the common monitoring system, to maintain and enhance support from regional and local communities and other stakeholders for the preservation of the sites and their settings and to secure financial support in order to improve maintenance and presentation of the sites.

Threats common to most of the sites included in this nomination, such as land use, housing developments and visitor pressure, and also natural agents like plant growth and animal activities, need to be tackled in a collaborative way. More site-specific threats, such as damage by development, specific animals or plants, or earthquakes, require additional research and training and the exchange of expertise, knowledge and mutual support.

The overall management group will consist of representatives from National Heritage Boards, Cultural Heritage Agencies and/or Ministries in the respective States Parties, according to the legal responsibilities awarded them by their respective cultural heritage laws. The respective site managers will also form part of the group.

The formation of the overall management group will take place in 2014 and the first meeting is planned for December 1st 2015.

If inscribed, an updated version of the possible justification for inscription will be published online following the 39th World Heritage Committee Session in 2015.

2.2 POTENTIAL OUTSTANDING UNIVERSAL VALUES AND THE *VESTFOLD SHIP BURIALS*

In the transnational, serial nomination of *Viking Age Sites in Northern Europe*, the component part of *Vestfold ship burials* represents the burial places of the Viking Age. In addition, Borre can also be seen as an early seat of governance.

As monumental structures in the landscape, the burial places fall under criterion (iv). Funerary monuments come in many shapes and forms, and vary according to geo-cultural region and historical periods. 'Ship burials' is one type of funerary monument where a ship constitutes the core of the monumental construction. Furthermore, the ship burials tend to be easily visible in the landscape. However, in addition to being large monuments, the ship burials also provide

insights into the cultural traditions of the Viking Age which fall under criterion (iii). Constructing a ship burial is a costly process which requires physical resources in addition to man power. Thus only a minority of the people of the past have been in a position to construct ship burials. The *Vestfold ship burials* is thereby a testimony to the hierarchical nature of the Scandinavian Viking Age societies.

Despite the fact the burial mounds can be considered memorials for the deceased, the ship burials also function as symbols for the living: Through the mounds the linages of the deceased could express their continuing power and ownership over the land. Furthermore, the grave goods clearly display the presence of the wide contact networks of the deceased and his or her lineage, and enable us and future generations to appreciate the extensive gift exchange and trade of the Viking Age. As the ship burials in Vestfold were opened during the Viking Age, they also showcases the political developments in the Viking Age and how the destruction of funerary monuments were means to break the power of older linages. Finally, the placing of a ship in a burial mound can be read as both the deceased's means of transport to the realm of the dead, but may also be seen as reflection of how the chieftain linages of Viking Age Scandinavia constructed their position, power and wealth through strategic used of the ship.

3 IMPACT ASSESSMENT

The key factors affecting the nominated areas and proposed buffer zones have been identified as being

- **natural disasters**
 - flooding caused by increased precipitation
 - danger of fire as a result of lightning strikes
 - trees blown down in gales in connection with extremes of weather
- **development pressures**
 - infrastructural developments (roads, railways, power supplies)
 - business developments (trade, industry and agriculture)
 - increased residential or leisure building developments
- **other challenges**
 - re-growth of the cultural landscape due to altered patterns of land use and climatic changes
 - wear and tear, decomposition and littering due to increased use and visitation at the nominated sites
 - direct and deliberate destruction of cultural monuments and sites and the values they represent

The table below presents the current impact assessment and grades the likely types of impact for each of the nominated areas.

TABLE 5 INDICATORS OF THE STATE OF THE PROPERTY.

	Natural disaster			Development pressure			Other		
	Flood	Fire	Blown-down trees	Infra-Structure	Business	Residential/leisure buildings	Regrowth	Wear and tear	Destruction
Borre									
High							x		
Medium			x					x	
Small	x	x				x			
Minimal				x	x				x
Oseberg									
High									
Medium	x				x		x	x	
Small						x			
Minimal		x	x	x					x
Gokstad									
High				x					
Medium							x	x	
Small					x	x			
Minimal	x	x	X						x

In the following the types of impact identified as having greatest significance for the *Vestfold ship burials* is presented in more detail.

3.1 NATURAL DISASTERS AND EMERGENCY PREPAREDNESS

The report *Climate Change and Cultural Heritage in the Nordic Countries* (TemaNord 2010), assesses the possible consequences of climate change may have on cultural monuments, sites and landscapes. The report states that:

Prognoses for the future climate of the Nordic countries compared with historical climate data indicate that the impact of the climate on many cultural heritage sites is increasing. In the first part of the report, risks for increased decomposition and damage to various categories of cultural heritage sites were identified. Damage may partly be caused by an increase in decomposition over the course of time and partly be brought about acutely as a result of extreme weather incidents such as flood, landslide or tree fall during storms. (TemaNord 2010:37).

Based on the report, the dangers of serious natural disasters such as earthquakes, floods, floodwaves or landslides are assessed as non-existent or minimal for all the nominated areas. The consequences of extreme weather such as storms or large amounts of local precipitation are also assessed as being small for the *Vestfold ship burials* because of their robust nature. The same applies to threats linked to natural phenomena such as lightning strikes and fires. At **Borre**, tree fall during storms may be a problem if the roots are torn up so that part of the soil of the mounds is exposed.

At times, elevated water levels of the nearby streams may cause parts of the nominated area of **Oseberg** to lie under water. This will not, however, impact the preservation of the mound nor affect the proposed Outstanding Universal Values of the area.

No separate risk preparedness plans have been drawn up for the nominated areas as no natural catastrophes threatening the proposed Outstanding Universal Values been identified. The sites are, however, included in the municipalities' emergency contingency plans.

3.2 CLIMATE CHANGE

Vestfold's climate is changing: There are more extreme precipitation incidents and the temperature is rising. It is anticipated that the mean temperature will rise by between 2.3 and 4.8 degrees up to 2100, and as a consequence the sea level is rising. By 2050 it is likely that the sea level has risen up to 15 cm. and by 2100 up to half a meter. As the sea level during Viking Age is calculated to have been 3.8 metres higher than today, the estimated rise of sea level and the new levels of spring tides will not, however, affect the potential Outstanding Universal Values of (see Annex I, Map 09: Viking Age sea level at Borre, Map 10: Viking Age sea level at Oseberg and Map 11: Viking Age sea level at Gokstad).

The report *Climate Changes and Cultural Heritage in the Nordic Countries* also describes the way in which climate change may affect the preservation of cultural heritage sites, stating that:

While in general a damper climate will lead to deteriorating conditions for heritage buildings, the effect on conservation conditions for archaeological sites is less certain. In some places conservation conditions for archaeological material under ground could also improve because the water content of the earth becomes higher. In other places, conservation conditions will become worse because of increased erosion or – in Arctic regions – the thawing of permafrost in the earth in which archaeological material lies protected. Today we do not know enough about how climate change will affect conservation conditions for cultural heritage sites, particularly archaeological material in earth and water. (TemaNord 2010:38).

The *Vestfold ship burials* are also part of a larger natural environment where securing the survival of rare and red-listed species is a priority. In the *Overall Plan for Borre Park* emphasis has been put on maintaining the habitats of rare or threatened species such as hole-nesting birds, red-listed species of fungus and occurrences of the greater butterfly orchid (*Platanthera montana*).

3.3 INFRASTRUCTURAL DEVELOPMENT PRESSURES

The nominated areas are situated in urban municipalities which are experiencing an increase in population and infrastructural developments. Almost 20 per cent of the land area in the county consists of cultivated land, and its protection is of major importance to the long-term strategic land use management. There is also a considerable amount of leisure-related development in the region.

TABLE 6 NUMBERS OF INHABITANTS IN THE NOMINATED AREAS AND BUFFER ZONES.

Vestfold ship burials	Nominated area	Buffer zone
Borre mounds	-	112
Oseberg mound	-	172
Gokstad mound	-	56
Total	-	340

Generally speaking, infrastructural development pressures as a result of increased building for residential and leisure purposes, for trade and industry as well as road and railways pose a continuing challenge to the surroundings of all three nominated areas. In the coming years it is in particular the railway which will be the most important infrastructural development in Vestfold: After a feasibility study and concept selection study were completed in 2011 and 2012, a new national implementation strategy for a more efficient intercity rail network is currently being drawn up. The Vestfoldbane (Vestfold railway) is one of the networks which will be upgraded. The railway includes a stretch passing through the municipalities of Horten, Sandefjord and Tønsberg. While the final new track alternatives have yet to be established and made public by Jernbaneverket, the current proposals are not in conflict with the proposed Outstanding Universal Values of the *Vestfold ship burials*.

The following section moves from the general to the specific and describes the development status for each of the nominated areas separately.

Borre mounds

The existing municipal master plan does not indicate any conflicts regarding land-use designation that will affect the Borre burial field. The nominated area has statutory protection as well as protection in municipal area plans (see *Annex I, Map 12: Areas requiring special consideration*).

Oseberg mound

The area is primarily affected by possible developments within the agricultural management of the land (see *Annex I, Map 13: Municipal master plan. Oseberg, Tønsberg municipality*).

Gokstad mound

The areas around the Gokstad mound are faced with fairly high development pressures. The land use part of the municipal master plan allows for a new county road through parts of the proposed buffer zone (see *Annex I, Photo 14: Municipal master plan. Gokstad, Sandefjord municipality*). The new ring-road structure is to ease the traffic to and from Sandefjord. However, the new road structure will not impact the Outstanding Universal Values of the site, rather on the contrary: At present a modern industrial area is cutting across agricultural landscape. With the new infrastructure this will be relocated and the land returned to fields. Furthermore, an earth embankment will be constructed making the road invisible from the Gokstad mound. This will contribute to visually restoring the landscape around Gokstad. An archaeological survey of the area was conducted in 2012, and at present the Regulation plan is being drawn up.

Power cables cross the area east of the mound. Any future conversion to underground cables will entail encroachments on the nominated area, and this will require prior archaeological investigations and if necessary, excavations. At present there are no specific plans for this.

3.4 PRESSURE FROM VISITORS AND TOURISM

It is assumed that the burial mounds in Vestfold and the surrounding areas receive between 80,000 and 90,000 visitors every year. The figures are, however, somewhat uncertain as all the areas are open to the general public throughout the year and are used for recreational purposes by the local population.

TABLE 7 ANNUAL VISITS (2012). FIGURES THE CULTURAL RUCKSACK, ORGANISED VISITS AND PAYING VISITORS TO MIDGARD ARE BASED ON ACTUAL FIGURES. OTHER FIGURES ARE ESTIMATES.

Vestfold ship burials	Cultural Rucksack programme	Other organised use children/adolescents	Registered/ paying	Other	Total
Borre mounds	1673	2000	0	50 000	53 600
Oseberg mound	0	1200	0	5000	6 200
Gokstad mound	0	800	0	3000	3 800
Midgard Historical Centre	(1673)	427	22 000		22 500
Total	1600	4500	22 000	58 000	86 100

The nominated area at **Borre** is an important recreational outdoor area for the local population and contains a network of paths. These are used in summer and winter for walking and cycling. Problems with erosion and excessive wear and tear on the terrain on and around the mounds have been registered as a result of the active use of the area. These areas are, however, monitored and repaired as necessary. At the **Oseberg** and **Gokstad** mounds no problems linked to erosion and wear and tear have been registered.

3.5 OTHER CHALLENGES

3.5.1 IMPACT OF AGRICULTURE

The most important strategy for maintaining the open, cultural landscape around the mounds is the retention of viable agriculture. However, modern cultivation methods and changes in the agricultural uses of the land present challenges for the *in situ* preservation of archaeological remains. The factors most likely to impact the *in situ* preservation of archaeological remains in the nominated areas are deep ploughing and fertilization of cultivated land. Deep ploughing leads to an increased supply of oxygen to the soil, and the increased oxygen content tends to lead to an acceleration of the decomposition of the archaeological remains. While soil analyses have been carried out in Slagendalen and at Borre, it has not been possible to draw any conclusions about the general state of conservation for the archaeological material. In spite of the possible negative impacts from agricultural operations on the archaeological record, the retaining of an active agricultural use of the landscape is seen as the most important strategy for preserving the Outstanding Universal Values in all the nominated areas. Furthermore, geophysical surveys and grants offered to prevent deep ploughing are used as a means to reduce the scale of potential damage of the archaeological record.

3.5.2 REGROWTH

Regrowth has been a challenge in respect of care and maintenance since the time the **Borre** Park was established in the 1930s. This has visually impacted the cultural landscape and led to some decomposition as roots of the trees have penetrated the mounds, leading to increased oxygen

supply and water seepage. The *Overall Plan for Borre Park 2007–2015* sets out a strategy of targeted, regular upkeep and permanent funding. The plan divides the park into various management zones. Since maintenance work started in 2004, a number of measures have been implemented, and today zones with view of the sea have been established.

At the **Oseberg** and **Gokstad** mounds the risk of regrowth is minimal as long as the routines for care and maintenance are sustained. The issue of regrowth is only of relevance if cultivation and grazing patterns are significantly altered in the future.

3.5.3 OTHER FACTORS

Minor damage and vandalism have occurred, but no damage permanently or irreparably affecting the Outstanding Universal Values of the sites have been registered.

4 VISIONS AND GOALS

The vision for the component part is ***Vestfold ship burials – common past, universal future.***

4.1 MAIN GOALS

The overarching goal of the management plan is *to ensure the production of knowledge, reflection and memorable experiences through the dissemination, protection and preservation of the ship burials' potential Outstanding Universal Values for today's residents and visitors and for future generations to come.*

4.2 SUB-GOALS

Sub-goal 1 Dissemination of the *Vestfold ship burials*

The dissemination of the *Vestfold ship burials* shall be knowledge-based and widely accessible locally, regionally and globally.

Sub-goal 2 Preservation of the *Vestfold ship burials*

The *Vestfold ship burials* shall be maintained and developed in such a way that the potential Outstanding Universal Values are preserved.

Sub-goal 3 Protection of the *Vestfold ship burials*

The *Vestfold ship burials* shall be protected and safeguarded for future generations.

Sub-goal 4 Production of knowledge of the *Vestfold ship burials*

New expertise on the *Vestfold ship burials* shall be gained through scientific research and the transfer of traditional crafting skills.

4.3 MEASURES

The baseline for evaluating the openness of the landscape is 2012. In addition to annual site missions where photo documentation will be used to monitor the situation of the nominated areas, analyses of the openness of the landscape of the buffer zone will be based on aerial photography every six years and a decennial LIDAR scanning will be undertaken. Using these methods it is possible to gain an understanding of alterations in the landscape, not only for the nominated areas, but also the buffer zones, and thereby secure the preservation of the

Outstanding Universal Values. For a broader overview, see section chapter 9 Action Plan 2012–2016 and appendix III for the upkeep of the individual sites.

5 INSTRUMENTS OF MANAGEMENT

In order to ensure that the targeted goals are achieved, a series of different instruments of management – from laws to funding – are used. Furthermore, during 2012-2013 the first holistic management approach for Norway's World Heritage was taken. The White Paper *Framtid med fotfeste* (based on the 2012 national strategy document *Ny, helhetlig verdensarvpolitikk*) provides national guidelines and describes the goals for the management of Norwegian World Heritage Sites. According to the White Paper, the Norwegian World Heritage Sites are to function as national sites of best practice within natural and cultural heritage management. Together the legal protection, the plans and guidelines enable a continuous management structure that safeguards the ship burials for future research and dissemination. In the following the most central instruments of management are described.

5.1 LEGAL PROTECTION/LEGISLATION

The legislative protection of the *Vestfold ship burials* consists of a combination of international conventions and agreements, national laws and regional and local plans. The international legal framework is presented first, followed by a more detailed account of relevant national legislation and regional and local plans. It is central to keep in mind that it is first and foremost the national legislation in combination with the regional and local plans which are the most important legal instruments for ensuring future preservation of the *Vestfold ship burials*.

5.1.1 INTERNATIONAL CONVENTIONS AND CHARTERS

The international conventions Norway has ratified are legally binding. The list below, draw attention to the conventions which play a significant role in the management of the nominated areas in Vestfold:

- The Convention concerning the Protection of the World Cultural and Natural Heritage, UNESCO, 1972
- The Convention for the Safeguarding of the Intangible Cultural Heritage, UNESCO, 2003
- European Convention on the Protection of Archaeological Heritage, Council of Europe, 1992 (Valetta convention)
- European Landscape Convention, Council of Europe, 2000

Furthermore, the following charters, adopted by ICOMOS, provide guiding principles on preservation:

- International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter), 1964
- Charter for the Protection and Management of the Archaeological Heritage, 1990 (Lausanne Charter)
- Charter for the Interpretation and Presentation of Cultural Heritage Sites, 2008.

5.1.2 NATIONAL LEGISLATION

Nationally, the 'Cultural Heritage Act' and the 'Planning and Building Act' are the most important legal means for protecting the *Vestfold ship burials*. The two acts are therefore described in more detail before other relevant Norwegian legislation is presented.

Cultural Heritage Act

The purpose of Act of 9 June 1978 no. 50 concerning the Cultural Heritage (the Cultural Heritage Act) is to protect archeological and architectural monuments and sites, and cultural environments. The Act contains provisions on automatically protected monuments and sites, protected areas, and the right to grant exemptions. The cultural monuments and sites automatically protected by law (cf. Sections 4 and 14) are:

- all cultural monuments and sites older than 1537 AD (the Reformation)
- standing structures originating from before 1650
- Sami monuments and sites that are over 100 years old
- boat and ship finds under water that are more than 100 years old.

The Act prohibits the disturbance of automatically protected monuments and sites, but exemptions may be granted (section 8). Importantly the act is not aimed at preventing the use of cultural monuments and sites, and exemptions can be granted for measures that do not reduce the historical value significantly. Based on a professional and societal assessment by the cultural heritage authorities, exemptions are granted and archaeological surveys/excavations conducted. As a main rule the initiator of the project must cover the costs of registration and excavation, but the State can provide grants for less extensive private projects.

An automatically protected monument or site is surrounded by a security zone extending a minimum of 5 metres from the visible perimeter of the monument or site. The nominated ship burials and other grave memorials in the Borre Park are automatically protected pursuant to section 4 of the Cultural Heritage Act (*see Annex II, Photo: 22 The Borre Park*). The Borre Park also forms part of a larger area covered by a protection order of 5 November 1990 made by the then Ministry of the Environment pursuant to section 19 of the Act. The church, rectory and Midgard Historical Centre are included in the protected area. Borre Church is automatically protected, and the rectory with its main building and tenant farm was protected by a protection order of 23 July 1991 pursuant to section 15 of the Cultural Heritage Act.

The Oseberg and Gokstad mounds are automatically protected and have a security zone of five metres. Efforts will be made to extend the security zone so that the entire area inside the stone wall at the Oseberg and Gokstad mounds respectively will be included in the security zone (*see Annex II, Photo 23: The Oseberg mound and its surrounding parkland and Photo 24: The Gokstad mound and its surrounding parkland*).

Planning and Building Act

The Act of 27 June 2008 no. 71 relating to Planning and the Process of Building Applications (the Planning and Building Act) provides a coordinated planning system for land use and resource extraction for the national, regional and local actors and institutions. The overarching objective is to achieve sustainable development. As a result the Planning and Building Act is an

increasingly important legal instrument for the safeguarding of cultural monuments and sites not protected by the Cultural Heritage Act.

The Planning and Building Act requires the municipalities to adopt a municipal planning strategy. In addition, the municipalities must draw up an overall municipal master plan that consists of a social section with an action plan and a land-use section. The municipal master plan must promote municipal, regional and national goals, interests and functions. It must be based on the municipal planning strategy and on guidelines and orders issued by central government and regional authorities. In the land-use section, cultural monuments, sites and environments can be safeguarded through the land-use objectives and in particular through the provision of 'zones requiring special consideration'⁵. The Act gives the municipalities the main responsibility for detailed planning, but ensures that regional and national interests are taken into consideration. The zoning plans are the means to conduct detailed area planning providing background information about the current situation of the given area and indicate future developments and restrictions.

In the municipal master plans there are areas designated for agricultural, nature and outdoor recreation objectives and reindeer husbandry (ANRR areas). While there is a general construction ban in the ANRR areas, erection of buildings or the implementations of measures necessary for agriculture are permitted. There is also a general ban on building inside a 100-metre belt along the shoreline. The nominated areas and the proposed buffer zones are mainly designated as ANRR areas in the land-use plans of the municipalities.

Other statutes and regulations

Nature Diversity Act

The purpose of the *Act of 19 June 2009 no. 100 relating to the Management of Biological, Geological and Landscape Diversity* (the Nature Diversity Act) is to protect the biological, geological and landscape diversity and ecological processes. The Act replaced the Nature Conservation Act (Act of 19 June 1970 no. 63 relating to Nature Conservation) which originally sanctioned the regulations concerning the Fjugstad Nature Reserve in the proposed buffer zone at Borre.

Land Act

The purpose of the *Act of 12 May 1995 no. 23 relating to Land* (the Land Act) is to provide suitable conditions ensuring that land resources may be used in the manner that is most beneficial to society. It contains provisions on cultivated and cultivable land. The Act is of importance for the preservation of the cultural landscape in the nominated areas and buffer zones to future generations.

⁵ The new planning part of the Act, which entered into force on 1 July 2009, introduced the concept of 'zones requiring special consideration' that "*to the extent necessary ...shall indicate the considerations and restrictions that affect the use of land* (section 11-8). Provisions and/or guidelines can be stipulated for the zones requiring special consideration. If no other provisions are given in the municipal land-use plan, the new plan applies in preference to older plans.

Forestry Act

The purpose of the *Act of 27 May 2005 no. 31 relating to Forestry* (the Forestry Act) is to promote sustainable management of forest resources in Norway with a view to promote local and national economic development and to secure biological diversity, consideration for the landscape, outdoor recreation and the cultural values associated with the forest.

5.1.3 REGIONAL AND LOCAL PLANS AND INSTRUMENTS

The measures for ensuring protection in accordance with the relevant legal framework are primarily documented in plans at the municipal level. In addition the Planning and Building Act sets out provisions for regional planning.

Regional plans

Regional planning is dealt with in the Planning and Building Act under Part III Regional planning, chapters 7 and 8. Here requirements are stipulated for the preparation of a regional planning strategy every electoral term which is to be submitted to the King in Council for approval. Moreover, regional master plans must be prepared and an action plan for the implementation of the regional master plan drawn up. The planning program must be prepared in cooperation with affected municipalities and the central government.

On 26 October 2010 the county council adopted the proposal for a planning program for the *Regional plan for bærekraftig arealpolitikk (Vestfold Regional plan for sustainable area politics)*. The background for the start-up of the plan was the overarching objective of the regional development strategy for Vestfold (RuV 06-09). The preparation adheres to the provisions of the Planning and Building Act on regional planning and environmental impact assessments. The overarching objectives are to formulate joint land-use policies for sustainable societal development while ensuring greater predictability for public and private actors involved in planning processes. On 25 April 2013 the *Vestfold Regional plan for sustainable area politics* was adopted by the Vestfold County Council.

The regional plan consists of several sub-plans and *Virksomhet for Kulturarv* (Department for Cultural Heritage) in Vestfold County Authority prepared the plan for 37 high-priority cultural environments as part of the process. The three nominated sub-areas are among these. The criteria made for the selection of the prioritized areas have been that

- the cultural monuments, sites and landscapes form an integrated environment
- the cultural environment offers a high potential for more archaeological remains
- the cultural environment represent a significant historical source
- the cultural environment offers high quality experiences and provides a basis of regional identity
- the cultural environment shows the passage of time, has a distinctive character and/or variation

In addition to the *Vestfold Regional plan for sustainable area politics*, a range of regional plans important for the preservation of cultural environments have been adopted. Current, relevant county authority plans of significance for the nominated sub-areas are presented in the list

below. The date of approval by the Ministry of the Environment, if applicable, appears in the right column. Otherwise the date of approval by the county council appears.

TABLE 8 STATUS FOR REGIONAL PLANS.

Plans/strategies	Year of adoption
County sub-plan for the coastal zone in Vestfold (Coastal zone plan)	Approved 20 February 2003 (Ministry of the Environment)
County master plan for coordinated land use and transport system	Approved 23 July 2001 (Ministry of the Environment)
Strategy for business development 2011-2014	Approved 14 December 2010 (Vestfold county council)
Strategic culture plan for Vestfold 2011-2014	Adopted 14 December 2010 (Vestfold county council)
Vestfold Regional plan for sustainable area politics	Adopted 23 April 2013 (Vestfold county council)

Municipal plans

Horten municipality/Borre mounds

The land-use part of the municipal master plan

The land-use part of the 2011-2023 municipal master plan was adopted by the municipal council on 20 June 2011. In the plan, the Borre Park is shown as an agricultural, nature and outdoor recreation objectives and reindeer husbandry (ANRR area). The proposed buffer zone is mainly earmarked as an ANRR zone, but small areas are reserved for housing, cemeteries and cremation urn parks, public or private service provision and also green structures.

The nominated property and the proposed buffer zone are incorporated into one or several zones requiring special consideration. These are shown on a special thematic map that accompanies the land-use part of the municipal master plan. Zones requiring special consideration are marked out for areas of particular recreational and landscape values and areas for the preservation of the natural environment (*see Annex I, Map 12: Areas requiring special consideration. Borre, Horten municipality*).

Zoning plans

A small part of the nominated area that is automatically protected, a small part of the protected area from 1990, and a somewhat larger part of the nominated property are covered by Plan ID S231: Zoning plan for an information centre in Borre National Park, adopted by the municipal council on 7 December 1994. A minor alteration in the zoning plan was adopted on 10 November 2003 (Plan ID S231 E1). Six zoning plans related to limited areas in the buffer zone were adopted in the period 1988-2009.

Overall Plan for Borre Park 2007 - 2015

The plan gives an account of the cultural history and the ownership and management status of the Borre Park. The *Overall Plan* is intended to function as a work of reference providing information for use in the management of the area. An extract from the plan is provided in Annex III.

Tønsberg municipality/Oseberg mound

The nominated site and the buffer zone are designated as an ANRR area in the land use part of the municipal master plan adopted by the municipal council on 16 April 2008. A thematic map of cultural heritage that defines Slagendalen as an “*area that is especially rich in visible monuments and sites*” was included in the discussions on the master plan by the city council. No zoning plans have been adopted for Slagendalen, the Oseberg mound and the surrounding area (see Annex I, Map 13: Municipal master plan. Oseberg, Tønsberg municipality).

Sandefjord municipality/Gokstad mound

The nominated site and the buffer zone are designated as ANRR areas in the municipal master plan adopted on 11 February 2010. The municipal master plan does not make provision for building developments in the area, nor are there any zoning plans. When the municipal master plan is next reviewed, the Gokstad mound and adjoining areas will be located in a zone requiring special consideration, cf. Planning and Building Act section 11-8 letter c), (see Annex I, Map 14: Municipal master plan. Gokstad, Sandefjord municipality).

The current land-use plan contains a proposal for an altered road pattern within the proposed buffer zone east of the present railway line and the built-up area, crossing the plain of Gokstadsletta inside the proposed buffer zone. At present archaeological surveys have been conducted and a regulation plan for the redevelopment of the area is being prepared, but construction work has yet to commence (see also chapter 3.3).

5.2 SOURCES OF FINANCE

In addition to the legal protection, financial instruments are crucially important means to ensure that the regional and local authorities carry out their tasks. In the field of cultural heritage protection there are a number of individual schemes that are funded over individual posts in the national budget. At the same time there are numerous options for project funding, often in cooperation between private and public stakeholders.

5.2.1 NATIONAL SCHEMES

The Directorate for Cultural Heritage has its own grant scheme for sites with World Heritage status funded by appropriations allocated through the national budget (Item 79).

In addition, the Directorate has a separate scheme for the care of automatically protected cultural monuments and sites (Item 70). The applications are sent to the county authority, which assesses and prioritizes the applications before forwarding it to the Directorate for further processing. Applications can also be made for grants for care and dissemination activities and the like.

The Norwegian Cultural Heritage Fund (under the Ministry of Climate and Environment) funds projects targeted towards private owners and voluntary organisations that manage protected cultural monuments and sites and cultural environments. Sites with World Heritage status are included within this framework.

5.2.2 REGIONAL AND LOCAL SCHEMES

Vestfold County Authority is responsible for preparing and implementing a regional environmental program for agriculture. As part of the program there are assistance schemes

aimed at stimulating active agricultural operations that safeguard and develop the open cultural landscape. The county governor also provide grants for selected agricultural landscapes.

Vestfold County Authority offers annual grants for care and maintenance directly to the three nominated areas. Moreover, there are grants offered to prevent deep ploughing in areas where there is archaeological material.

Municipal SMIL (special environmental protection measures for agricultural activities) provides a relevant funding mechanism for the care of the cultural landscape (regulated through the Regulations of 4 February 2004 no. 448 concerning grants to special environmental measures in agriculture). Appropriate measures can be cutting grass, clearing and grazing in order to make cultural monuments more visible. The municipalities process grant applications.

Every year Vestfold County Authority provides funding for the care and maintenance and information activities at protected monuments and sites. The funding is distributed through the budget of the Department for Cultural Heritage. While the general funding is means based, the Department is in charge of prioritizing and distributing the funding. Furthermore, funding for care and maintenance is included in the general budget posts in the three municipalities. The table below presents an overview of the annual grants and resources devoted to the care and maintenance of the nominated areas and the proposed buffer zones.

TABLE 9 ANNUAL CARE AND MAINTENANCE (2011).

Source	Borre Park	Oseberg mound	Gokstad mound	Total
Vestfold County Authority	405 000	0	0	405 000
Horten municipality	40 000	0	0	40 000
Tønsberg municipality	0	40 000,-	0	40 000
Sandefjord municipality	0	0	35 000	35 000
Vestfold Museums	27 000	0	0	27 000
Total	472 000	40 000	35 000	547 000

5.3 CARE AND MAINTENANCE OF THE NOMINATED AREAS

One of the most importance means of ensuring the protection, dissemination and use of the *Vestfold ship burials* for future generations is continuous upkeep of the nominated areas. The upkeep of the areas also enhances the visitor experience of the ship burials. The following subsections describe the procedures and agencies responsible for upkeep of each of the three areas (for a more detailed overview, see the *Overview plan for Borre* and the *Gokstad* and *Oseberg* plans of maintenance).

5.3.1 BORRE

The Vestfold County Authority organises, follows up and bears the costs of the measures set out in the *Overall Plan*. Since the preparation of the *Overall Plan* commenced in 2004 a number of measures have been implemented. In particular the clearing of vegetation through planned felling of tall trees and clearance of scrub and ground flora has been prioritized (see *Annex I, Photo 15: Management zones at Borre*). Today, zones allowing a view of the sea have been

established and the main challenge is to clear vegetation to the north and northeast. This is the responsibility of Horten municipality but no satisfactory routines have been established for this part of the area.

In winter the car park and the avenue leading up to the entrance of Borre Park are cleared of snow whereas the paths inside the park are not.

5.3.2 OSEBERG

The maintenance of the nominated area of Oseberg is ensured by managing the vegetation in the nominated area. The grass inside the stone wall is cut every week in the summer season and the grass along the trails is thinned and weeding is carried out on a regular basis. Rubbish is removed on a regular basis all year round. The car park is cleared of snow in the wintertime, but the heritage trail leading to the mound and the area around the information boards are not. Tønsberg municipality is responsible for care and maintenance whereas Vestfold County Authority is first and foremost responsible for the on-site dissemination.

5.3.3 GOKSTAD

The maintenance of the nominated area of Gokstad is ensured by managing the vegetation in the nominated area. The grassy area within the park is mowed once a week between 1 May and 1 October, albeit more frequently in June and July. In spring and autumn, borders are edged and weeding carried out. Scrub and bushes outside the stone wall are cut back once during the summer. The car park is cleared of snow four times during the winter. Sandefjord municipality is responsible for care and maintenance while the Vestfold County Authority is primarily responsible for on-site dissemination.

5.4 ACCESS AND ON-SITE AMENITIES

The *Vestfold ship burials* are visible and easily accessible monuments. The principle of general access will be maintained if *Vestfold ship burials* is World Heritage listed. Furthermore, stronger measures to ensure that the nominated areas are physically and interpretatively accessible for as many as possible will be taken.

5.4.1 ACCESS AND INFORMATION ALONG THE MAIN ROUTES OF COMMUNICATION

There is road access to all the three nominated areas. However, there is a need for better signposting from the E-18 (the main road through the county) to the nominated areas. If the *Vestfold ship burials* are given World Heritage status, the need for this will be covered by general, national measures for signposting to World Heritage Sites in Norway. Furthermore there is a varying need for better signposting from the three close-by towns of Tønsberg, Horten and Sandefjord and the roads directly leading to the sites. Digital information is available and will be developed continually.

5.4.2 ON-SITE INFRASTRUCTURE AND AMENITIES FOR VISITORS

Parking

In connection with Midgard Historical Centre (part of the Vestfold Museums) at **Borre** there is an established and previously approved car park. The close by 'Guild hall' (replica of a Viking guild hall) is first and foremost reached via a pedestrian pathway, but there is also a limited number of HC parking spots available.

At the **Oseberg** mound the parking capacity is limited and the lack of a suitable turning space for buses restricts the possibility for putting up signposts. The car park at the **Gokstad** mound has relatively small capacity (25 passenger cars).

In case the areas experience a growth in the number of visitors, it may be necessary to extend parking capacity at all three sites. However, it is assumed that the need for this will initially be most urgent at the **Borre**/Midgard Historical Centre where capacity problems have been registered from time to time even before potential World Heritage status is granted. At the **Oseberg** mound a car park with a bus turning space is needed if signposting is to be approved.

Amenities for visitors

Midgard Historical Centre is located in close proximity to the **Borre** mounds and serves as the most important arena for knowledge-based dissemination of the *Vestfold ship burials* (see Annex II, Photo 25: Midgard Historic Centre). The facilities at Midgard Historical Centre include exhibition areas, a lecture room and a cafeteria. Viking-related literature in several languages and souvenirs can be bought, and brochures and other information material are available during the Centre's opening hours. The nearby Guild Hall also has toilets. Guiding in the Borre Park is available every Sunday in the high season, and can otherwise be arranged through the Centre. Paths with a firm surface have been laid inside the nominated area as a means to comply with the requirement for 'accessibility for all'. Furthermore, there are toilets in the Borre Park that are open for the public during events. In addition, an app providing a virtual display Viking Age Borre can be downloaded for free and used whilst visiting the park.

No public amenities have been established at the **Oseberg** mound. There is no official guiding in the area, but this can be arranged through the Vestfold Museums if required. However, there is heritage trail up to the mound with signs informing the visitors about the excavation, the ship, the deceased and the finds leading (see Annex II, Photo 26: Cultural trail leading to the Oseberg mound). Furthermore, a prototype of a virtual tour of Viking Age Oseberg and its surroundings is currently being tested and will be made available as an app for mobile phones shortly.

There are no public amenities such as toilets at the **Gokstad** mound. However, drinking fountains have been mounted at the entrance from the car park, and water is provided there in the summer season. There is no official guiding in the area, but this can be arranged as required through the Vestfold Museums. However, there are monuments within the enclosed park of the mound where visitors can learn about the excavation, the ship, the deceased and the finds. There are also benches next to one of the information monuments (see Annex II, Photo 27: Monument with information signs and benches at Gokstad). Finally a prototype of a virtual tour of Viking Age Gokstad and its surroundings is currently being tested and will be made available as an app for mobile phones shortly.

As part of the project "Universally designed dissemination of the *Vestfold ship burials*", the physical accessibility and the on-site information infrastructure at the nominated areas are evaluated. The aim of the project is to enhance the physical accessibility as well as develop a more integrated on-site visual interpretation based on the principles of Universal Design. Furthermore, digital platforms for the *Vestfold ship burials* will be developed locally as well as form part of the international platform for *Viking Age Sites in Northern Europe* (www.vikingheritage.org).

5.5 KNOWLEDGE PRODUCTION AND KNOWLEDGE-BASED DISSEMINATION

In the following knowledge production and its knowledge-based dissemination can be divided into two different, yet related, perspectives: 1) Knowledge about UNESCO, the World Heritage Convention and the principles the convention was built on as well as the *Vestfold ship burials'* potential Outstanding Universal Values; 2) Knowledge about the history of the ship burials and more generally research on Viking Age Vestfold. It is essential that information about both the World Heritage Convention and the ship burials reach out to the general public – both local and visiting communities.

5.5.1 WORLD HERITAGE KNOWLEDGE AND DISSEMINATION

As a means to secure the protection of the potential Outstanding Universal Values of the *Vestfold ship burials*, it is crucially important to strengthen the local communities', stakeholders' and politicians' awareness and understanding of the World Heritage Convention. The World Heritage Convention is part of the UNESCO and thus the UN family, and consequently it is central to disseminate that convention serves a means to fulfil the organisations' overall goal of peace-keeping.

In addition to gain a broader awareness and understanding of the World Heritage Convention, it is also vital to ensure that the potential Outstanding Universal Values of the *Viking Age Sites in Northern Europe* and the *Vestfold ship burials* position in the serial nomination are known.

5.5.2 VESTFOLD SHIP BURIALS' CULTURAL HISTORY

As a means to ensure the goal of knowledge-based dissemination is fulfilled, it is central to continue to develop cooperative networks for research on and dissemination of the cultural history of the ship burials. The following describes the most important research and dissemination activities taking place during the course of the plan.

Gokstad revitalised creates new knowledge about the Gokstad man and his epoch through investigations of the deceased man, the grave, the surroundings and the longhouse at the Borre mounds. The project is led by the University of Oslo and includes a broad exchange of knowledge outside expert environments under the auspices of the University, the Vestfold Museums and the Vestfold county authority. As a result both research methods and findings have been disseminated in parallel with the archaeological surveys and excavations (*see Annex II, Photo 28: Gokstad Revitalised: Drill rig at work and Photo 29: Gokstad Revitalised: Cores from the Gokstad*).

In recent years *aerial and ground scanning* of all three sub-areas has been carried out. These methods provide good surveillance tools. The results will be combined and shared with the general public online and through media.

At present the *Cultural Rucksack's* production "A day in the Viking Age" is the most comprehensive dissemination program on Viking Age Vestfold. The Cultural Rucksack is a national outreach program for heritage and the arts. Through the production "A day in the Viking Age" all 6th graders in the county meet heritage professionals, are taught Viking history and archaeology as well as take part in reenactments. The event is funded by Vestfold County Authority and run by the Vestfold Museums. The program imparts knowledge to the managers of the future and if inscribed, should be extended to include World Heritage values and

UNESCO's World Heritage Convention (see Annex II, Photo 30: School children visiting Borre through the 'Cultural Rucksack').

In addition to the research projects and Cultural Rucksack, large-scale reconstruction projects have been completed in recent years. These have been central in developing a better understanding of Viking Age building techniques. During 2010-2012 *The New Oseberg Ship Foundation* built a replica of the Oseberg ship using historical tools and methods. Both the process of building the ship as well as its current use makes it an arena for learning. Furthermore, in 2013 the building of a Viking guild hall at Borre was completed and serves as another new arena for knowledge-based dissemination and social gatherings. These new reconstructions, along with the biannual Viking Market at Borre enable the transfer of traditional crafting skills.

5.6 TOURISM POTENTIAL

Located in central-eastern Norway, a one-hour drive to Oslo, and with an international airport and ferry connections to the Continent within the county, a World Heritage status may result in an increased number of national and international visitors to the *Vestfold ship burials*. The potential for increasing the proportion of organized group visits is assessed as particularly high. However, to achieve an influx in visitors it is crucial to establish a better collaboration with the Museum of Cultural History/Viking Ship Museum at the University of Oslo and the Vestfold region as well as the various local and regional actors within the heritage and tourism industries.

6 MONITORING AND EVALUATIONS

Based on chapter 3, the most important themes for systematic monitoring are:

- changes in the landscape and in the land-use as a result of development pressure
- regrowth of the cultural landscape
- wear and tear/traces of erosion due to increased use
- emergencies resulting from natural disasters/extreme weather.

The following subsections detail the main areas of monitoring and actions to be taken by the various stakeholders involved in the monitoring process.

6.1 PLANNED MEASURES

The reporting systems established through the Planning and Building Act and the Cultural Heritage Act allow local and regional planning authorities access information on any proposed development plans for the areas. Through the same acts, the procedures for contacting national cultural heritage authorities are established. However, certain agricultural initiatives fall outside the ordinary running of the planning processes. Thus in order to identify any agricultural measures planned, regional and local cultural heritage authorities are dependent on a close dialogue with landowners and operators in the nominated areas and their proposed buffer zones.

6.2 UNPREMEDITATED CHANGES OVER TIME

Changes in the cultural landscape can be monitored through visual surveys, either through on-site inspection or with the help of area photographing/scanning. To document changes in use or in the vegetation, annual inspections at Borre, Oseberg and Gokstad are planned using documentation acquired through photography on the ground. As noted in chapter 4.3, aerial photography is scheduled every six year and LIDAR scanning is scheduled every ten years in order to document changes in the vegetation patterns, patterns of cultivation or any constructional changes. The county authority will attempt to initiate a closer partnership with Geovekst (under the Norwegian Mapping Authority) in order gain better access to geodata.

6.3 EMERGENCIES

Staff at Midgard Historical Centre is responsible for regular reporting of significant incidents at **Borre**. At **Oseberg** and **Gokstad** care and maintenance staff monitors the mounds on a regular basis during the summer seasons. The rest of the year, the authorities depend on local inhabitants visiting the areas regularly. Emergencies are to be reported to the regional authorities in the Vestfold County Authority.

6.4 EARLIER REVIEWS

No systematic surveillance and reporting of the condition of any of the three areas have been conducted. The *Overall Plan for Borre Park 2007-2015* provides a systematic review of conditions in 2005. No combined summary and documentation of the impact of the plan has been compiled after the county council's adoption of it in 2007. There are no overall reviews for the Oseberg and Gokstad areas. However, as part of preparing the Oseberg and Gokstad plans of maintenance a thorough review of the physical conditions of the sites has been completed and action plans for the upkeep established. Furthermore, the action plan of this management plan (chapter 9) contains measures for the follow-up of the *Overall Plan for Borre Park* and measures for the Oseberg and Gokstad mounds.

7 REVISION OF THE MANAGEMENT PLAN

If the *Vestfold ship burials* are inscribed on UNESCO's World Heritage List, the work on the second-generation plan will commence in 2015. The management plan will be revised in line with the periodic reporting to UNESCO and the Norwegian strategies for World Heritage management. A periodic reporting will be carried out every six years, and will present the state of the preservation and management of the World Heritage Sites.

8 ADMINISTRATIVE DIVISION OF RESPONSIBILITY

The responsibility for the appropriate use and protection of cultural monuments and sites lies with the various bodies that manage these on a national, regional and local level. The different bodies and their roles are described in the following.

8.1 INTERNATIONAL LEVEL

At present a steering group chaired by Iceland has been established. If the *Viking Age Sites in Northern Europe* is inscribed onto the World Heritage List, the international steering group will

continue its work. The international steering group will meet annually and each State Party will be represented by a representative from the national heritage authorities (serving as the National Contact Person) and a member from each component part. In the steering group each State Party has one vote only and decisions must be unanimous. The steering group will prepare joint guidelines and advice on good management, work to enhance knowledge of Viking Age sites among the general public, increase research activity, involve and cooperate with local communities, monitor the Outstanding Universal Values and coordinate the periodic reporting. A Chair with the assistance of a Vice-chair will head the work of the steering group. The Chair serves for two years rotated in alphabetical order (Denmark, Iceland, Latvia, Norway and Schleswig-Holstein) and the Vice-chair serves as the following Chair.

8.2 NATIONAL LEVEL

Today a national, interim council for the World Heritage nomination is established. It consists of representatives from both the political and administrative levels of the *Hyllestad Quernstone Quarries* and *Vestfold ship burials* and of the Directorate for Cultural Heritage. If inscribed, this interim council will be continued as the World Heritage Council for the Norwegian component parts of the nomination.

The Directorate for Cultural Heritage acts as the advisory and executive arm of the Ministry of Climate and Environment. The Directorate is responsible for the implementation of cultural heritage policies and acts as the principal professional body for the nation's heritage management providing advice to the counties on the management of cultural monuments and sites, cultural environments and landscapes. Finally, the Directorate is also empowered to grant exemptions pursuant to the Cultural Heritage Act.

The Norwegian Environment Agency tasks include monitoring of the nation's eight different environmental Acts and their accompanying regulations. These include the Cultural Heritage Act and the Nature Diversity Act and also the Nature Inspection Act, the Outdoor Recreation Act and the Pollution Control Act. Thus the Inspectorate has the task of safeguarding national environmental values and preventing environmental crime, including aspects related to cultural heritage management.

Among the tasks of the *university museums* is the management of the State's ownership rights to moveable cultural heritage found on land (cf. chapter 1.3 of the regulations relating to the distribution of responsibility under the Cultural Heritage Act). In eastern and southern Norway, this role is held by the Museum of Cultural History at the University of Oslo. The Museum is responsible for excavations of archaeological monuments and sites within its area of responsibility.

The *county governor* has two main tasks within state administration with regards to municipal land use management: As the specialist authority for agriculture, environmental protection, health and civil protection, the county governor must ensure that national interests are safeguarded in land use management. Moreover, the county governor must ensure that municipal decisions in planning and building matters comply with the current regulations. Any parties affected can appeal to the county governor against municipal decisions related to zoning plans and building matters as well as against decisions pursuant to the Land Act, the Concession Act, and the Allodial Rights Act.

8.3 REGIONAL LEVEL

The regulations on the distribution of responsibility under the Cultural Heritage Act (chapter 1) states that *county authority's* responsibilities include: Decision-making regarding the use of land adjoining an automatically protected monument or site, giving advice on in-coming plans, registration and maintenance of automatically protected cultural heritage, the issuing restoration and maintenance orders and supervising orders given by others. In case individuals discover archaeological finds or detect damage to buildings, the county authority is the heritage authority which should be informed.

Finally, the county authority is to ensure that cultural monuments, sites and landscapes play a central role in and serve as resources in the lives of the local communities. In county of Vestfold, it is the county authority's Department for Cultural Heritage in co-operation with the Vestfold Museums that has the main regional responsibility for heritage management.

8.4 LOCAL LEVEL

In principal it is the individual *municipality* that makes the decisions regarding its use of land. One of the prerequisites for assigning planning authority to the municipalities has been that planning must take place within the framework of national policy guidelines. Supplementary provisions for municipal land use are given in the Planning and Building Act and its accompanying regulations.

In the case of the *Vestfold ship burials*, the land use part and any applicable zoning plans have been adopted by the steering bodies of the municipal councils of Horten, Tønsberg and Sandefjord. In order to comply with national cultural heritage polices, the municipalities are to ensure that the cultural heritage is secured through the responsible use and protection of the land area. Together with the *Vestfold Regional plan for sustainable area politics*, the land use plans adopted by the individual municipal council will provide the framework for unified, long-term management in the period in question.

8.5 AVAILABLE EXPERTISE

The different heritage management institutions constitute the actors ensuring sustainable management and dissemination of the *Vestfold ship burials*. Together the network of municipalities, the county authority, the Vestfold museums, the Museum of Cultural History and Directorate for Cultural Heritage have experts working within the fields of archaeological surveys and excavation, research, area planning, heritage management, national and international legislation and hands-on maintenance of heritage monuments. At present there is at least one employee at each of municipalities, the county authority and the Directorate for Cultural Heritage whose work specifically covers the preservation and the development of the nomination of the *Vestfold ship burials*.

9 ACTION PLAN 2012-2016

In order to reach the goals set out in chapter 4, an action plan has been drawn up. Furthermore, the action plan complies with the strategic culture plan for Vestfold 2011–2014, the sub-section “*Bygge Vikingfylket Vestfold*” (Build the Viking county of Vestfold).

9.1 JOINT MEASURES WITHIN THE ACTION PLAN

Description of measure	Sub-goal	Affected parties /participants	Responsible	Timeline
World Heritage signposting from the E-18 to the sites	1	Norwegian Public Roads Administration	Directorate for Cultural Heritage	After 2015
Establish a dissemination plan for World Heritage <i>Viking Age Sites in Northern Europe</i> and the <i>Vestfold ship burials</i> with local and regional impact	1	Vestfold Museums, Vestfold County Authority, Horten, Tønsberg and Sandefjord municipalities	Vestfold Museums	During 2013 Completed 2013
Assess experience gained and possible dissemination using an autoguide and “Virtual Viking Age”	1	Vestfold County Authority, the municipalities, Vestfold Museums, Department of Media and Communication (University of Oslo)	Vestfold County Authority, Vestfold Museums, Department of Media and Communication (University of Oslo)	During 2012-2013 Completed 2013
Continue and further develop the Viking Age as a topic in the Cultural Rucksack	1	Vestfold Museums, Horten, Tønsberg and Sandefjord municipalities, Vestfold County Authority	Vestfold Museums and Vestfold County Authority	Ongoing activity
Evaluate the place of World Heritage <i>Viking Age Monuments and Sites</i> and the <i>Vestfold ship burials</i> in the Cultural Rucksack	1	Vestfold Museums, Horten, Tønsberg and Sandefjord municipalities, Vestfold County Authority	Vestfold County Authority	Possible start-up, autumn 2015
Evaluate UNESCO’s World Heritage Convention as a topic in the Cultural Rucksack	1	Vestfold Museums and Vestfold County Authority	Vestfold County Authority	Possible start-up, autumn 2015
Clarify responsibility for and the organisation of web editing for the <i>Vestfold ship burials</i>	1	Vestfold County Authority and Vestfold Museums	Vestfold County Authority	To be clarified prior to summer 2015, with possible start-up from autumn 2015
Establish a broadly composed working group to assess strategies for the development of visitor attraction value	1	Voluntary clubs and associations, business interests, travel and tourism, landowners, municipalities, Vestfold County	Vestfold County Authority	To be set up in 2013 Sat up in 2013

		Authority and Vestfold Museums		
Evaluate measures for improved Universal Design at the nominated areas	1	Vestfold County Authority, Horten, Tønsberg and Sandefjord municipalities	Horten, Tønsberg and Sandefjord municipalities	To be conducted during 2013 Completed 2013
Follow up and assess the need for measures to increase parking capacity generally	1	Horten, Tønsberg and Sandefjord municipalities	Horten, Tønsberg and Sandefjord municipalities	Ongoing
Upkeep, operations and maintenance as separate budget items	2	Vestfold County Authority, Horten, Tønsberg and Sandefjord municipalities	Vestfold County Authority, and the individual municipality	Dependent on the granting of World Heritage status, applies to 2016 budget
Annual inspections of the state of the nominated areas and reporting	2	Vestfold county authority, Horten, Tønsberg and Sandefjord municipalities	Vestfold County Authority	Annual recurring events, independent of status
Continue analyses of the need for and prioritisation of more detailed geophysical surveys in the proposed buffer zone	3	Landowners, Vestfold County Authority, Horten, Tønsberg and Sandefjord municipalities	Vestfold County Authority	Ongoing
Establish routines for the dissemination and sharing of knowledge acquired through research projects	4	Department of Media and Communication (University of Oslo), Vestfold County Authority and Vestfold Museums	Department of Media and Communication Vestfold County Authority and Vestfold Museums	Ongoing

9.2 MEASURES WITHIN THE ACTION PLAN FRAMEWORK, BORRE MOUNDS

Description of measure	Sub-goal	Affected parties /participants	Responsible	Timeline
Complete work on the new information boards in Borre Park	1	Vestfold County Authority and Vestfold Museums	Vestfold County Authority	By the end of 2014
Complete work on upgrading the car park at Midgard Historical Centre	1	Horten municipality, Vestfold County Authority and Vestfold Museums	Vestfold County Authority	During 2012-2013 Completed 2013
Complete work on the Guild Hall	1	Vestfold County Authority, Horten municipality and Vestfold Museums	Vestfold County Authority	During 2013 Completed 2013
Evaluation of the <i>Overall Plan for Borre Park</i>	2	Vestfold County Authority, Horten municipality, Vestfold Museums	Vestfold County Authority	To be conducted during 2014-2015
Revision and rollover of the <i>Overall Plan for Borre Park</i>	2	Vestfold County Authority, Horten municipality, Vestfold Museums and the county governor	Vestfold County Authority	2014 – 2015
Assess measures to prevent regrowth in Horten municipality's plot at Borre	2	Horten municipality	Horten municipality	To be assessed during 2014, must also be seen in connection with the revision of the <i>Overall Plan</i>

9.3 MEASURES WITHIN THE ACTION PLAN FRAMEWORK, OSEBERG MOUND

Description of measure	Sub-goal	Affected parties /participants	Responsible	Timeline
Establish a trial scheme “a day at the Oseberg mound” for Grade 6 at Tønsberg schools	1	Tønsberg municipality, Vestfold Museums	Tønsberg municipality	From the school year 2015/2016
Prepare upkeep plans for the Oseberg mound	2	Tønsberg municipality, Vestfold County Authority	Tønsberg municipality	By the end of 2013 Completed 2013
Conduct geophysical surveys in the nominated area at Oseberg	2	Landowner, Vestfold County Authority	Vestfold County Authority	After 2015
Assess the clearance of a belt of vegetation along the Oseberg stream	2	Landowners, Vestfold County Authority and Tønsberg municipality	Vestfold County Authority	Before summer 2013 Completed 2013
Assess the enlargement of the security zone around the Oseberg mound to include the areas inside the stone wall	3	Directorate for Cultural Heritage, Vestfold County Authority and Tønsberg municipality	Vestfold County Authority	Before summer 2015
Establish zones requiring special consideration when rolling over the municipal master plan in Tønsberg municipality	3	Tønsberg municipality	Tønsberg municipality	When the plan is rolled over

9.4 MEASURES IN THE ACTION PLAN FRAMEWORK, GOKSTAD MOUND

Description of measure	Sub-goal	Affected parties /participants	Responsible	Timeline
Erect signs at the Gokstad mound on use of the area	1	Sandefjord municipality	Sandefjord municipality	During 2014
Repair the stone wall around the Gokstad mound	2	Sandefjord municipality, to be coordinated with <i>Gokstad revitalised</i>	Sandefjord municipality	By the end of 2014
Establish upkeep plans for the Gokstad mound	2	Sandefjord municipalities and Vestfold County Authority	Sandefjord municipality	By the end of 2013 Completed 2013
Assess the enlargement of the security zone around the Gokstad mound to include the areas inside the stone wall	3	Directorate for Cultural Heritage, Vestfold County Authority and Sandefjord municipality	Vestfold County Authority	Before summer 2015
Follow-up, selection of the new railway route past Gokstad	3	Sandefjord municipality, Vestfold County Authority and Directorate for Cultural Heritage	Directorate for Cultural Heritage	As required
Establish zones requiring special consideration when rolling over the municipal master plans in Sandefjord	3	Sandefjord municipalities	Sandefjord municipalities	When the plan is rolled over

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LISTS OF MAPS AND PHOTOS

LIST 1 MAPS

Id.no	Caption	Place	Produced	Copyright owner	Address
Map 01	Overview of the component part of Vestfold ship burials.	Vestfold county	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 02	The Scandinavian end moraine (Raet).	Vestfold county	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 03	Protected heritage sites and monuments in Slagendalen.	Slagendalen	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 04	Protected heritage sites and monuments around Gokstad.	Gokstad	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 05	Overview of the mounds of Borre and the possible harbour area.	Borre	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 06	Nominated area and proposed buffer zone of Borre.	Borre	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 07	Nominated area and proposed buffer zone of Oseberg.	Oseberg	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 08	Nominated area and proposed buffer zone of Gokstad.	Gokstad	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 09	Viking Age sea level	Borre	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 10	Viking Age sea level	Oseberg	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 11	Viking Age sea level	Gokstad	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg
Map 12	Zones for special consideration. Borre, Horten municipality.	Borre	2013	Horten municipality	Pb. 10 NO-3191 Horten
Map 13	Municipal master plan. Oseberg, Tønsberg municipality.	Slagendalen	2013	Tønsberg municipality	Pb. 2410 NO-3104 Tønsberg
Map 14	Municipal master plan. Gokstad, Sandefjord municipality.	Gokstad	2013	Sandefjord municipality	Pb. 2025 NO-3202 Sandefjord
Map 15	Management zones in the Borre Park.	Borre	2013	Vestfold authority	county Svend Foyns gate 9 NO-3126 Tønsberg

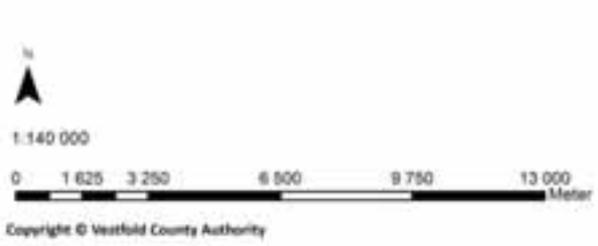
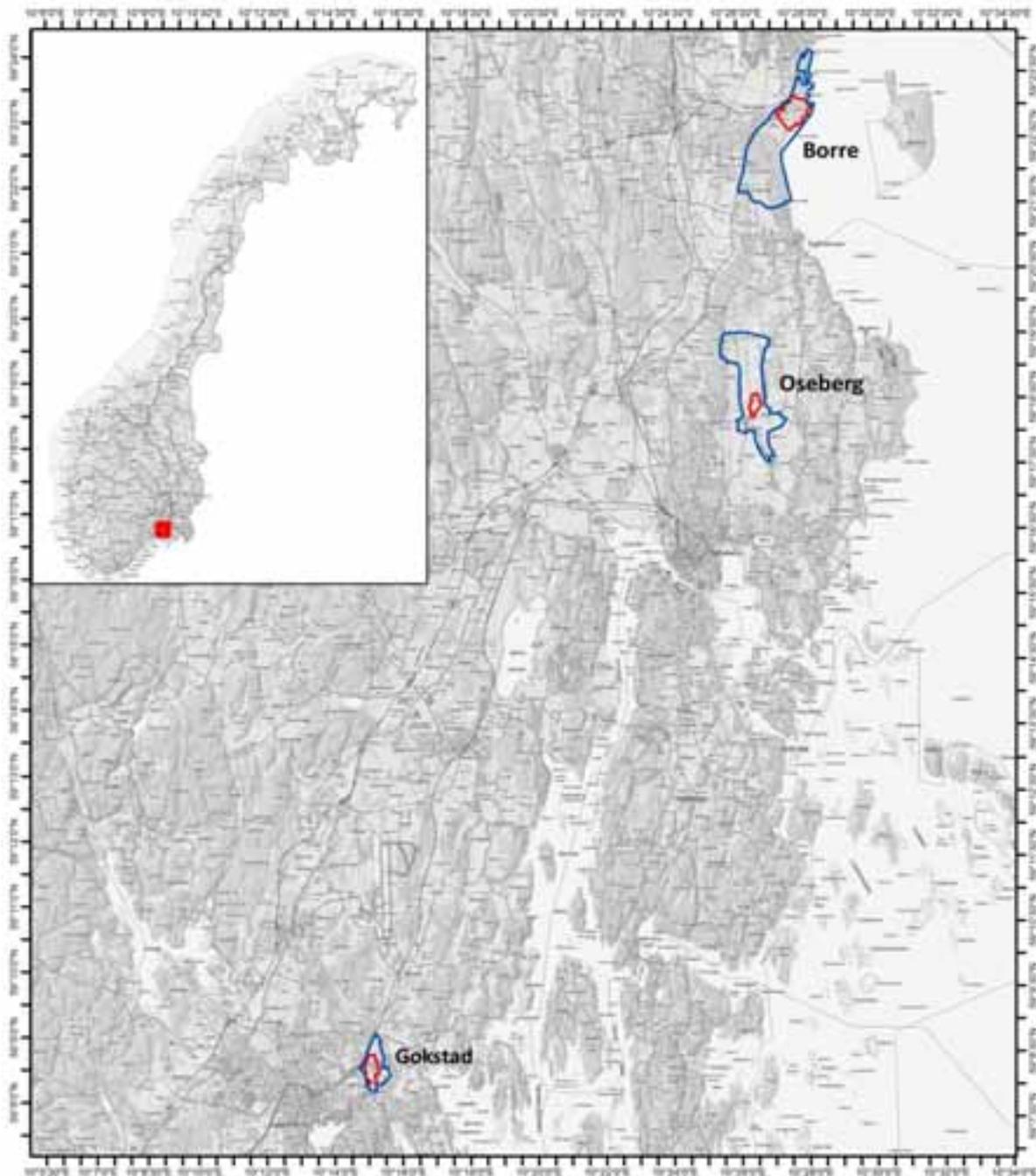
LIST 2 PHOTOS

Id.no	Caption	Date of Photo	Photographer	Copyright owner	Address	Non-exclusive of rights
Photo 01	Borre. The nominated area and the sea.	2011	Arve Kjersheim	Directorate for Cultural Heritage	Pb 8196 Dep NO-0034 Oslo	x
Photo 02	Borre. The nominated area and the buffer zone.	2011	Arve Kjersheim	Directorate for Cultural Heritage	Pb 8196 Dep NO-0034 Oslo	x
Photo 03	Oseberg. The nominated area.	2011	Arve Kjersheim	Directorate for Cultural Heritage	Pb 8196 Dep NO-0034 Oslo	x
Photo 04	Oseberg. The nominated area and the buffer zone.	2011	Arve Kjersheim	Directorate for Cultural Heritage	Pb 8196 Dep NO-0034 Oslo	x
Photo 05	Gokstad. The nominated area.	2011	Arve Kjersheim	Directorate for Cultural Heritage	Pb 8196 Dep 0034 Oslo Norway	x
Photo 06	Gokstad. The nominated area and the buffer zone.	2011	Arve Kjersheim	Directorate for Cultural Heritage	Pb 8196 Dep NO-0034 Oslo	x
Photo 07	Borre. Historic drawing.	1832	Johannes Flintoe	-	-	x
Photo 08	Horse collar from Borre.	1989	Eirik Irgens Johnsen	Museum of Cultural History, University of Oslo	Pb 6762. St. Olavsplass, NO-0130 Oslo	
Photo 09	Borre excavation, 1927.	1927	Bjørn Hougen	-	-	x
Photo 10	Borre. Map: Aslak Liestøl, 1973.	1973	Aslak Liestøl	Museum of Cultural History, University of Oslo	Pb 6762. St. Olavsplass, NO-0130 Oslo	x
Photo 11	Geophysical survey at Borre, winter 2013.	2013	Christer Tønning	Christer Tønning	3929 Porsgrunn Norway	x
Photo 12	Oseberg excavation, 1904.	1904	Olaf Væring	-	-	x
Photo 13	The Oseberg ship.	Unkown	Eirik Irgens Johnsen	Museum of Cultural History, University of Oslo	Pb 6762. St. Olavsplass, NO-0130 Oslo	

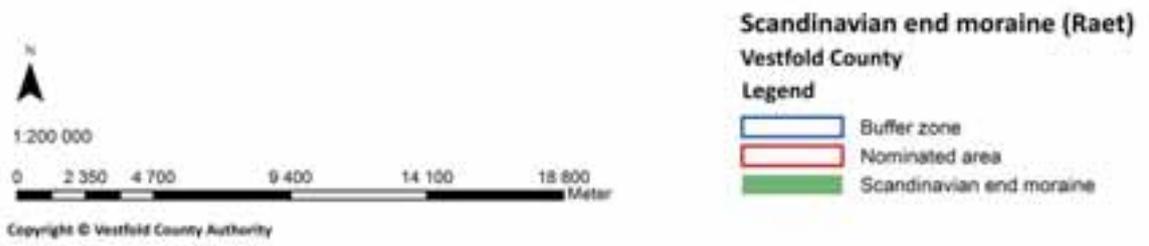
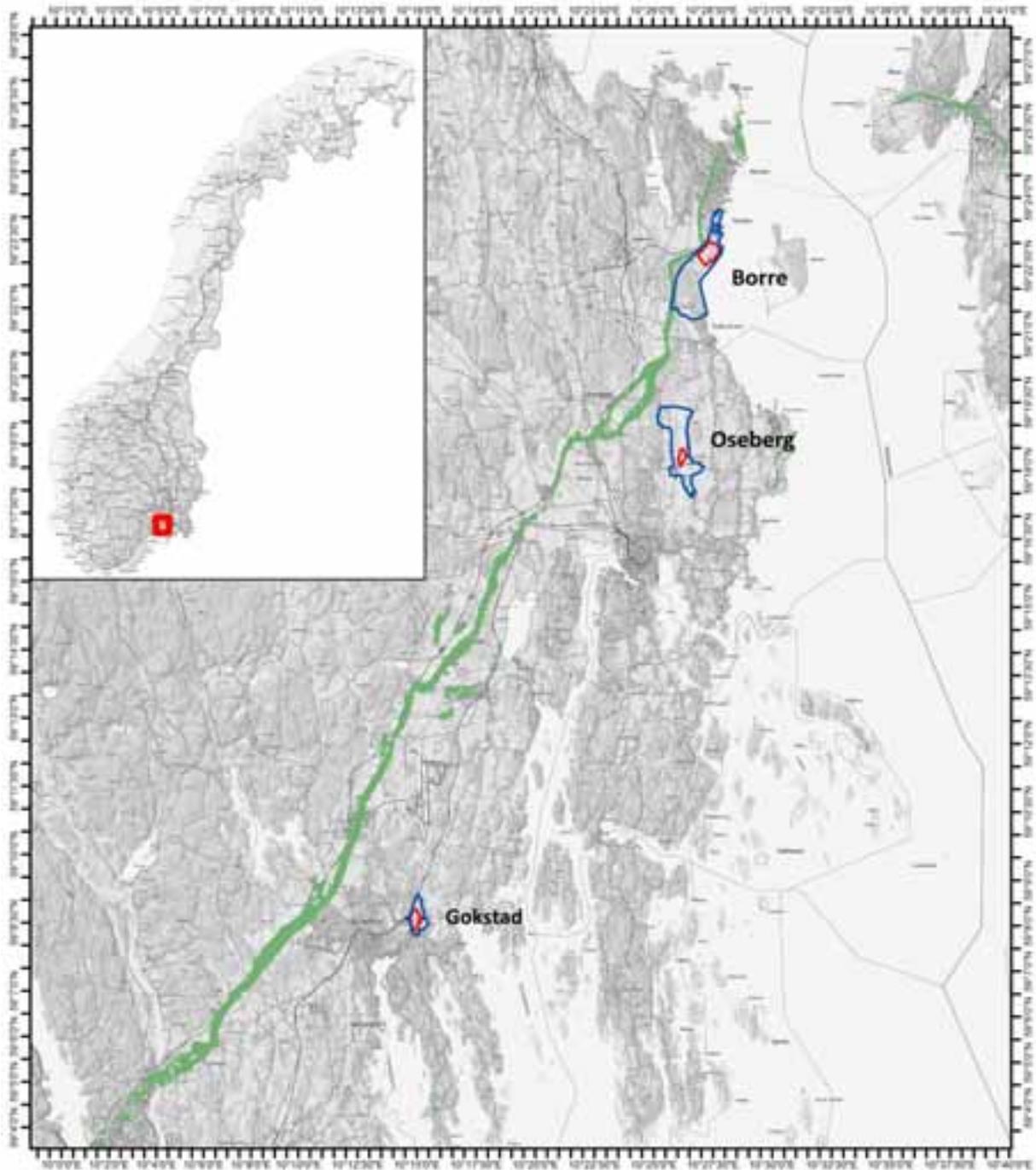
Photo 14	Sledge from Oseberg.	1991	Eirik Johnsen	Irgens	Museum of Cultural History, University of Oslo	Pb 6762. St. Olavsplass, NO-0130 Oslo	
Photo 15	Cart from Oseberg.	1991	Eirik Johnsen	Irgens	Museum of Cultural History, University of Oslo	Pb 6762. St. Olavsplass, NO-0130 Oslo	
Photo 16	Reopening of Oseberg, 2007.	2007	Anitra Fossum		Anitra Fossum	3090 Hof Norway	x
Photo 17	Gokstad excavation.	1880	Unknown		-	-	x
Photo 18	Gokstad excavation.	1880	Unknown		-	-	x
Photo 19	Gokstad Ship at the Viking Ship Museum, University of Oslo.	Unkno wn	Eirik Johnsen	Irgens	Museum of Cultural History, University of Oslo.	Pb 6762. St. Olavsplass, NO-0130 Oslo	
Photo 20	Burial chamber and small boats from Gokstad.	1999	Eirik Johnsen	Irgens	Museum of Cultural History, University of Oslo	Pb 6762. St. Olavsplass, NO-0130 Oslo	
Photo 21	Reopening of Gokstad.	2007	Anitra Fossum		Anitra Fossum	3090 Hof Norway	x
Photo 22	The Oseberg mound and its surrounding parkland.	2011	Arve Kjersheim		Directorate for Cultural Heritage	Pb 8196 Dep NO-0034 Oslo	x
Photo 23	The Borre Park.	2011	Arve Kjersheim		Directorate for Cultural Heritage	Pb 8196 Dep	Photo 22
Photo 25	Midgard Historic Centre.	2011	Arve Kjersheim		Directorate for Cultural Heritage	Pb 8196 Dep NO-0034 Oslo	x
Photo 26	Cultural trail leading up to the Oseberg mound.	2011	Arve Kjersheim		Directorate for Cultural Heritage	Pb 8196 Dep NO-0034 Oslo	x
Photo 27	Monument with information signs and benches at Gokstad	2013	Cathrine Engebretsen	S.	Cathrine S. Engebretsen	0165 Oslo Norway	x
Photo 28	Gokstad Revitalised: Drill rig at work taking	2011	Anitra Fossum		Anitra Fossum	3090 Hof Norway	x

Photo 29	out 70 soil samples from the Gokstad mound, October 2011	2011	Anitra Fossum	Anitra Fossum	3090 Hof Norway	x
Photo 30	School children visiting Borre through the 'Cultural Rucksack'.	2011	Arve Kjersheim	Directorate for Cultural Heritage	Pb 8196 Dep NO-0034 Oslo	x

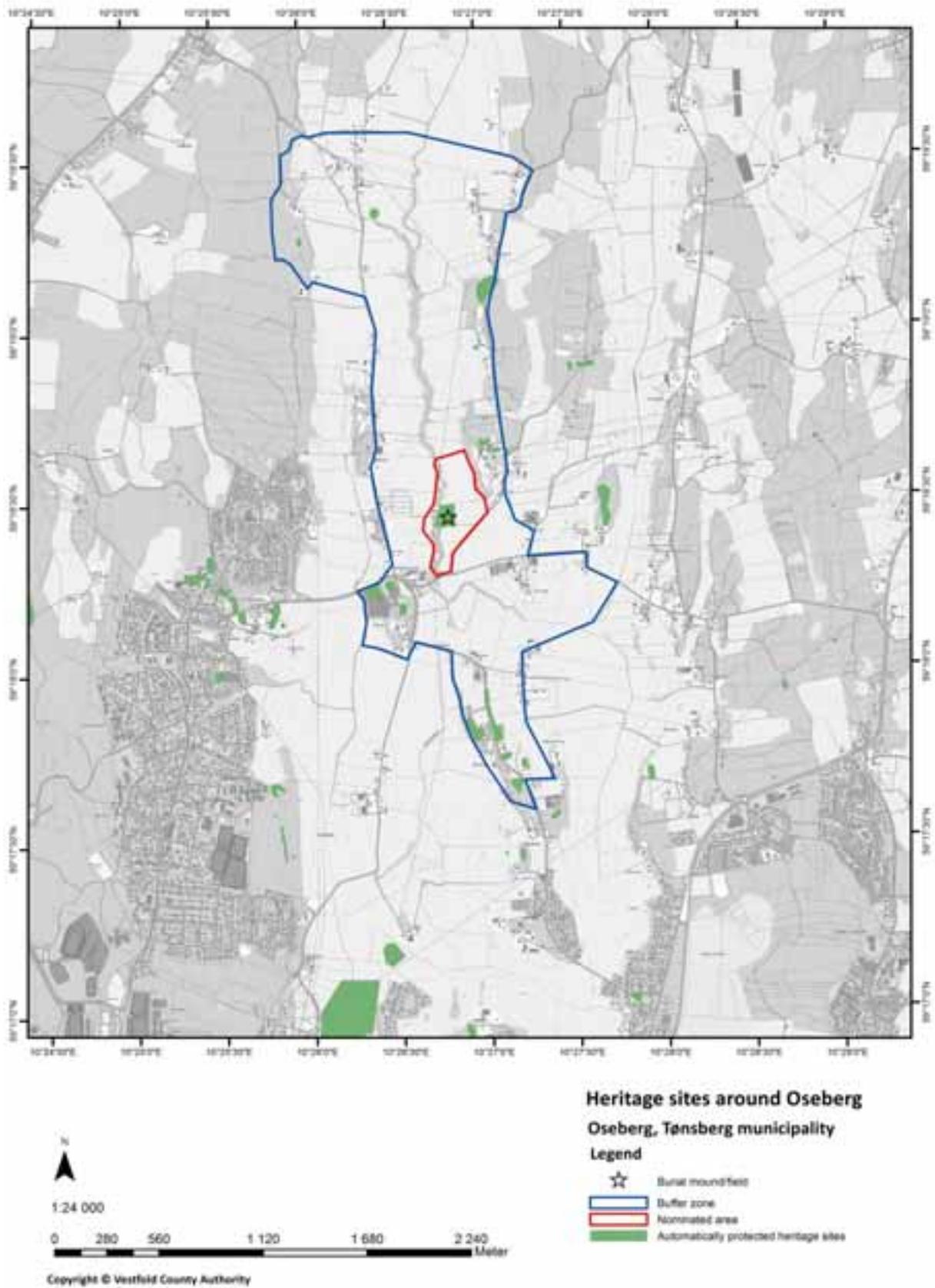
ANNEX I MAPS



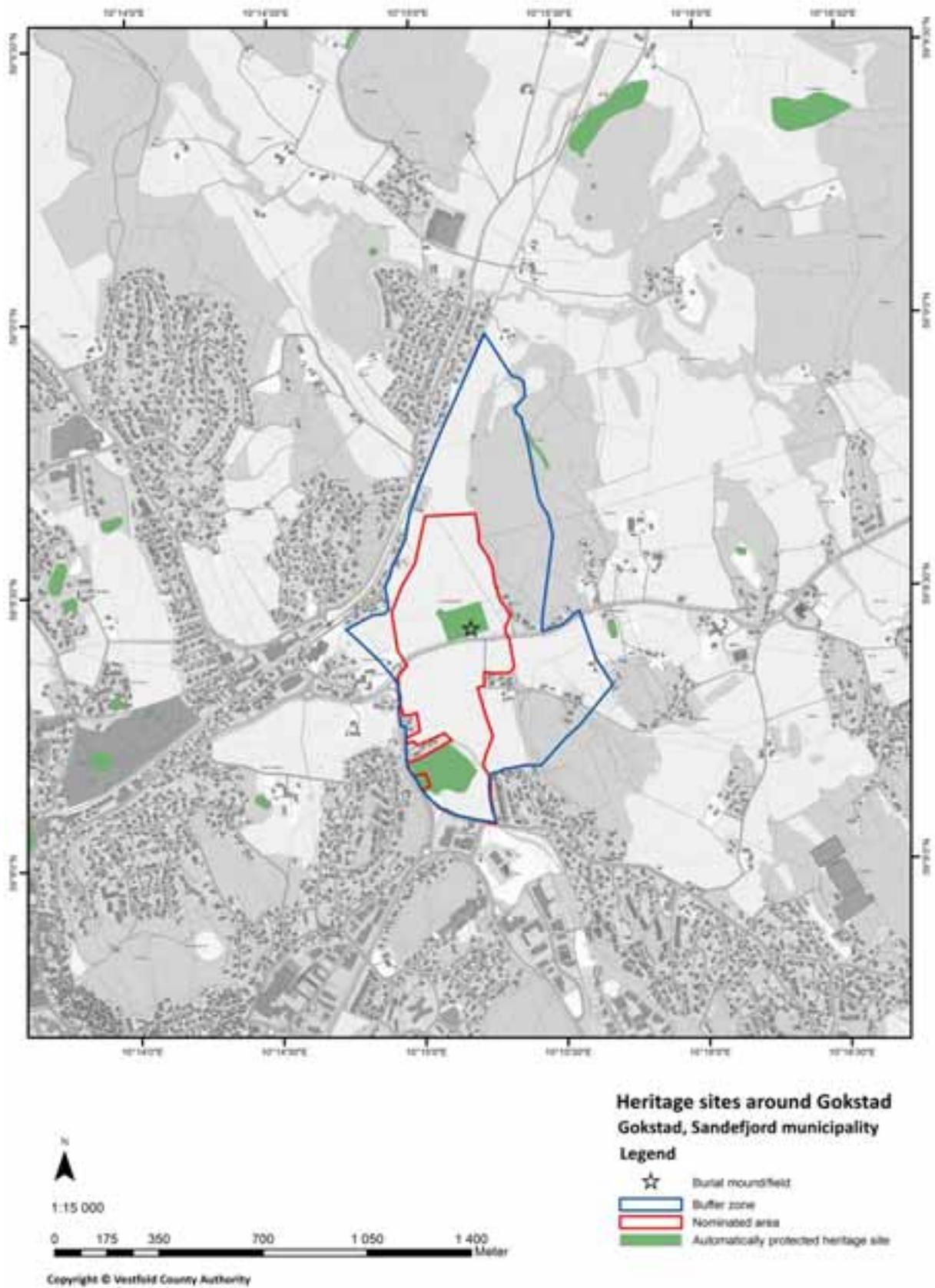
Map 01 Overview of the component part of Vestfold ship burials. ©Vestfold County Authority.



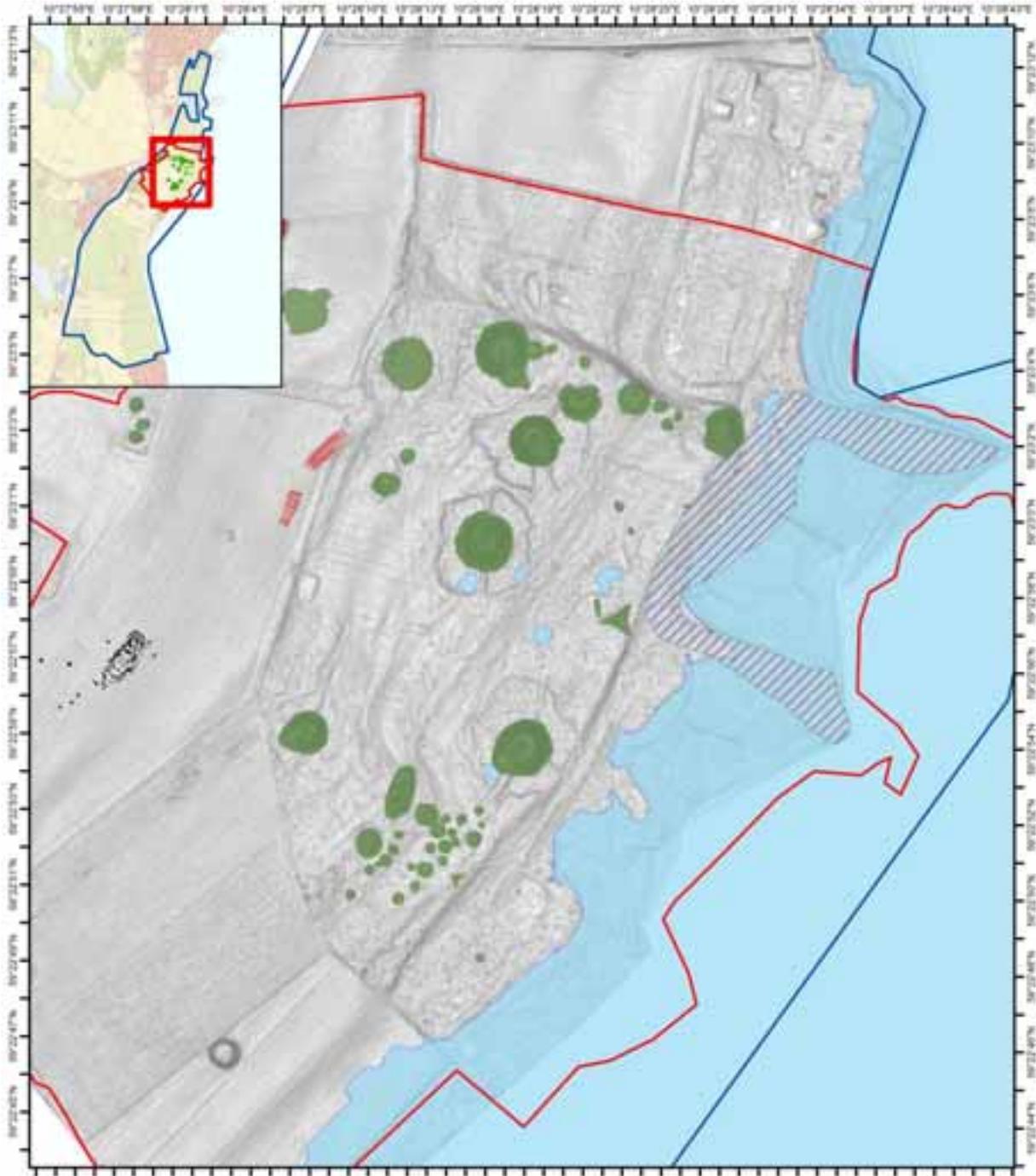
Map 02 The Scandinavian end moraine (Raet). ©Vestfold County Authority.



Map 03 Protected heritage sites and monuments in Slagendalen. ©Vestfold County Authority.

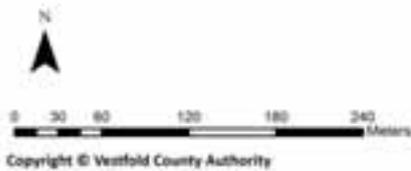


Map 04 Protected heritage sites and monuments around Gokstad. ©Vestfold County Authority.

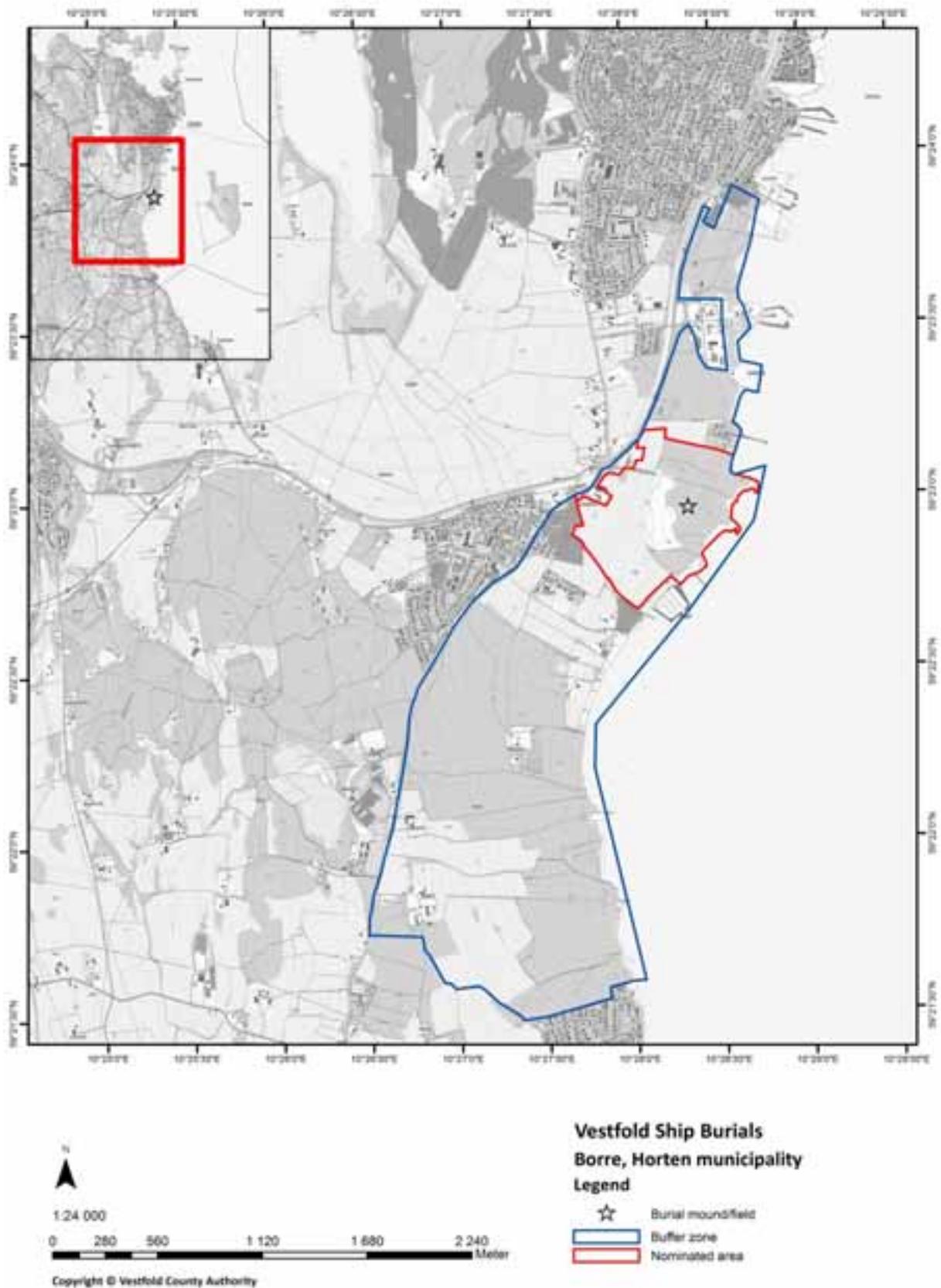


**Landscape overview
Borre, Horten municipality
Legend**

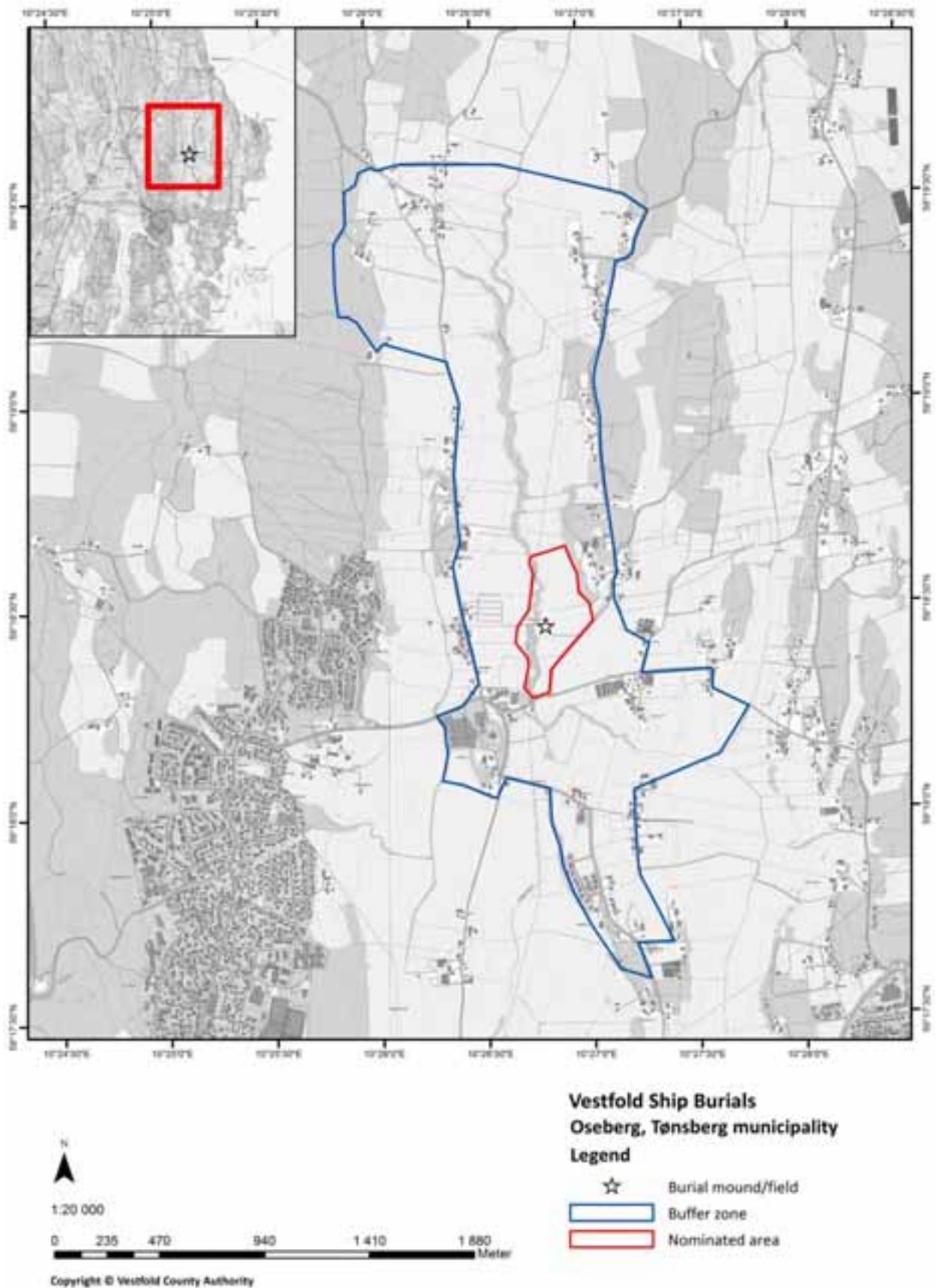
-  Buffer zone
-  Harmonized area
-  Possible port
-  Viking Age sea level
-  Burial mound
-  Interpretation of a building from the 2012 geophysical survey
-  Postholes
-  Geophysical interpretation of the lost buildings



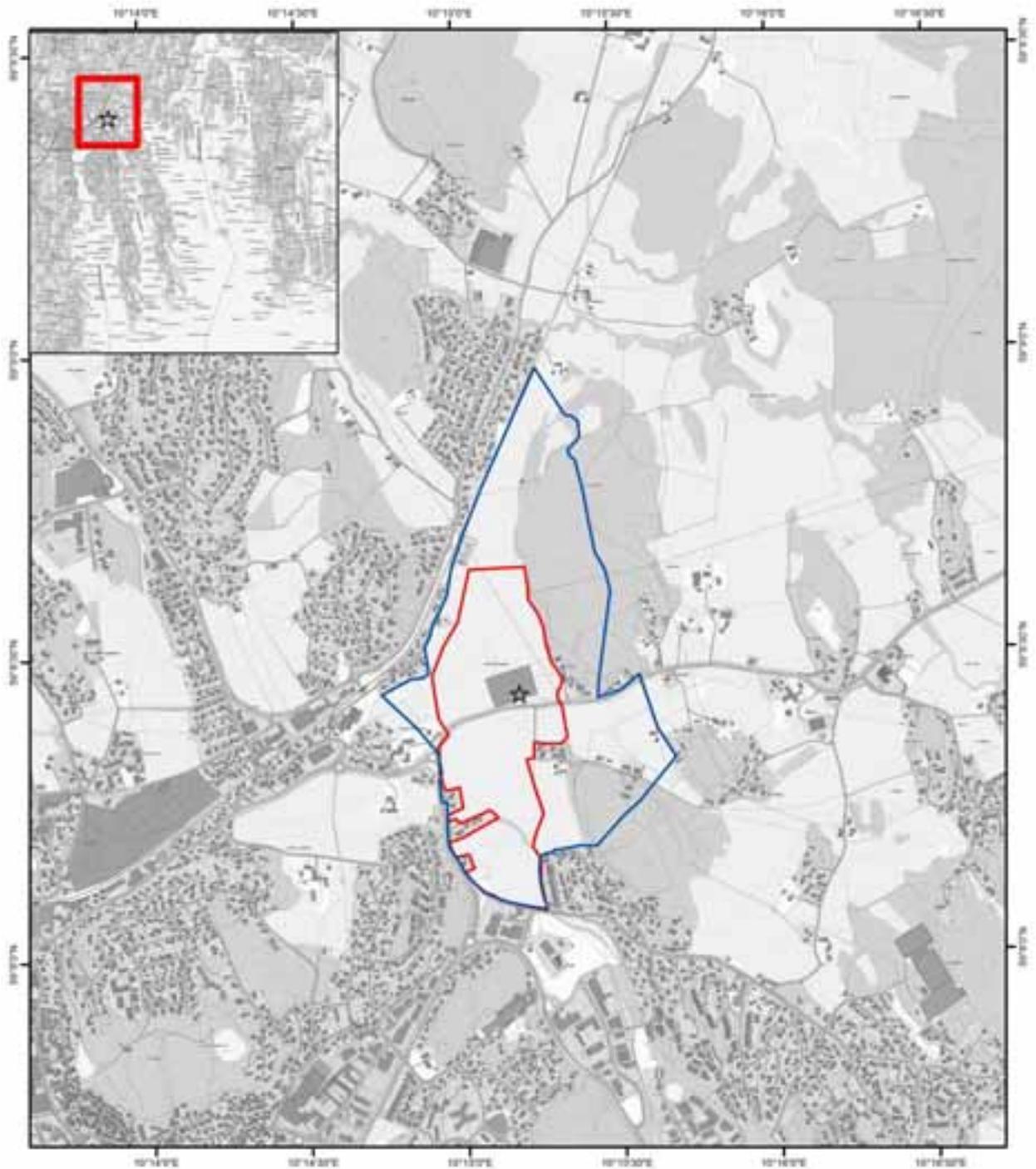
Map 05 Overview of the mounds of Borre and the possible harbour area. ©Vestfold County Authority.



Map 06 Nominated area and proposed buffer zone of Borre. ©Vestfold County Authority.



Map 07 Nominated area and proposed buffer zone of Oseberg. ©Vestfold County Authority.



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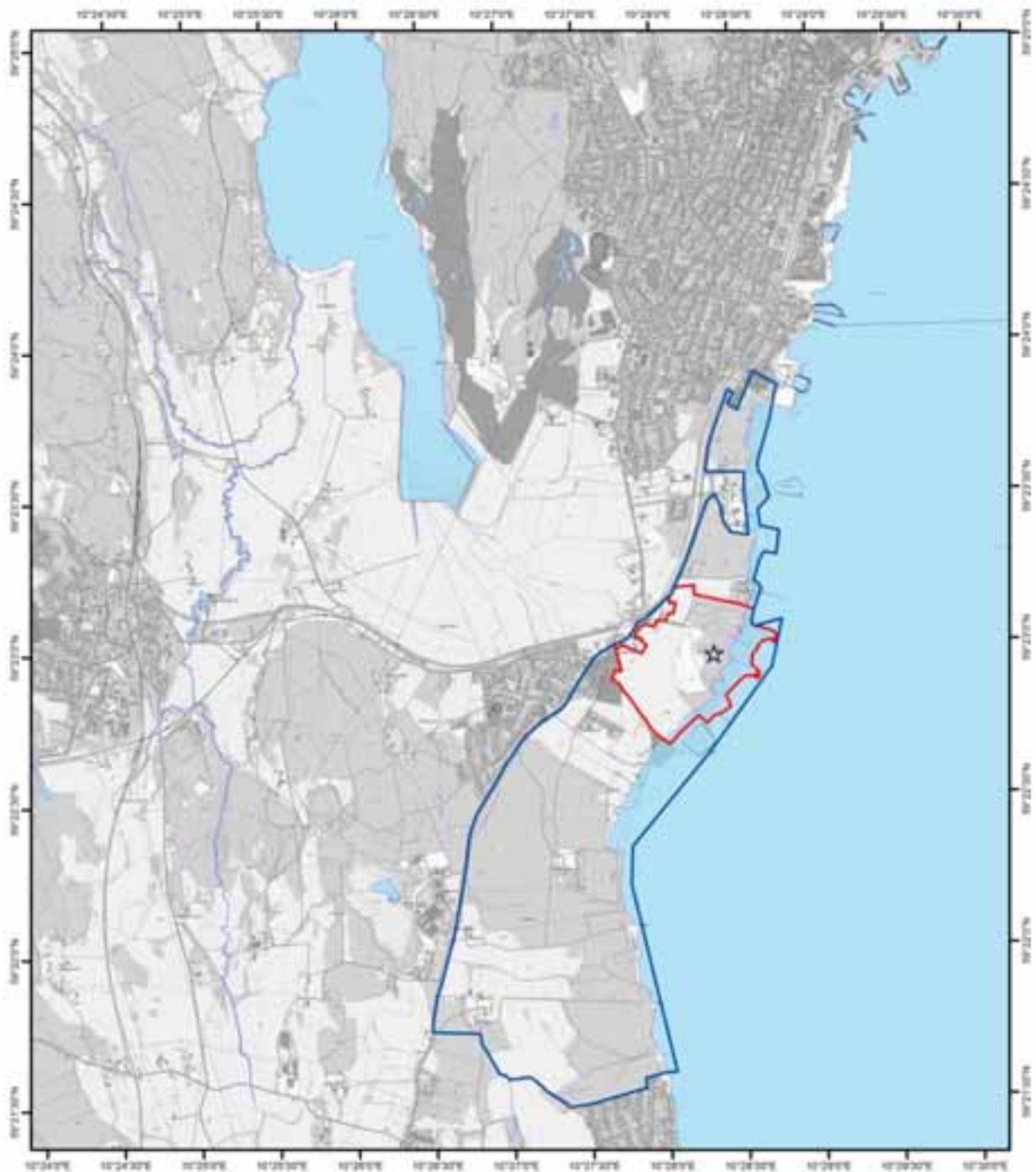
Vestfold Ship Burials

Gokstad, Sandefjord municipality

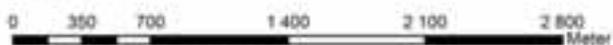
Legend

- ☆ Burial moundfield
- Buffer zone
- Nominated area

Map 08 Nominated area of and proposed buffer zone of Gokstad. ©Vestfold County Authority.



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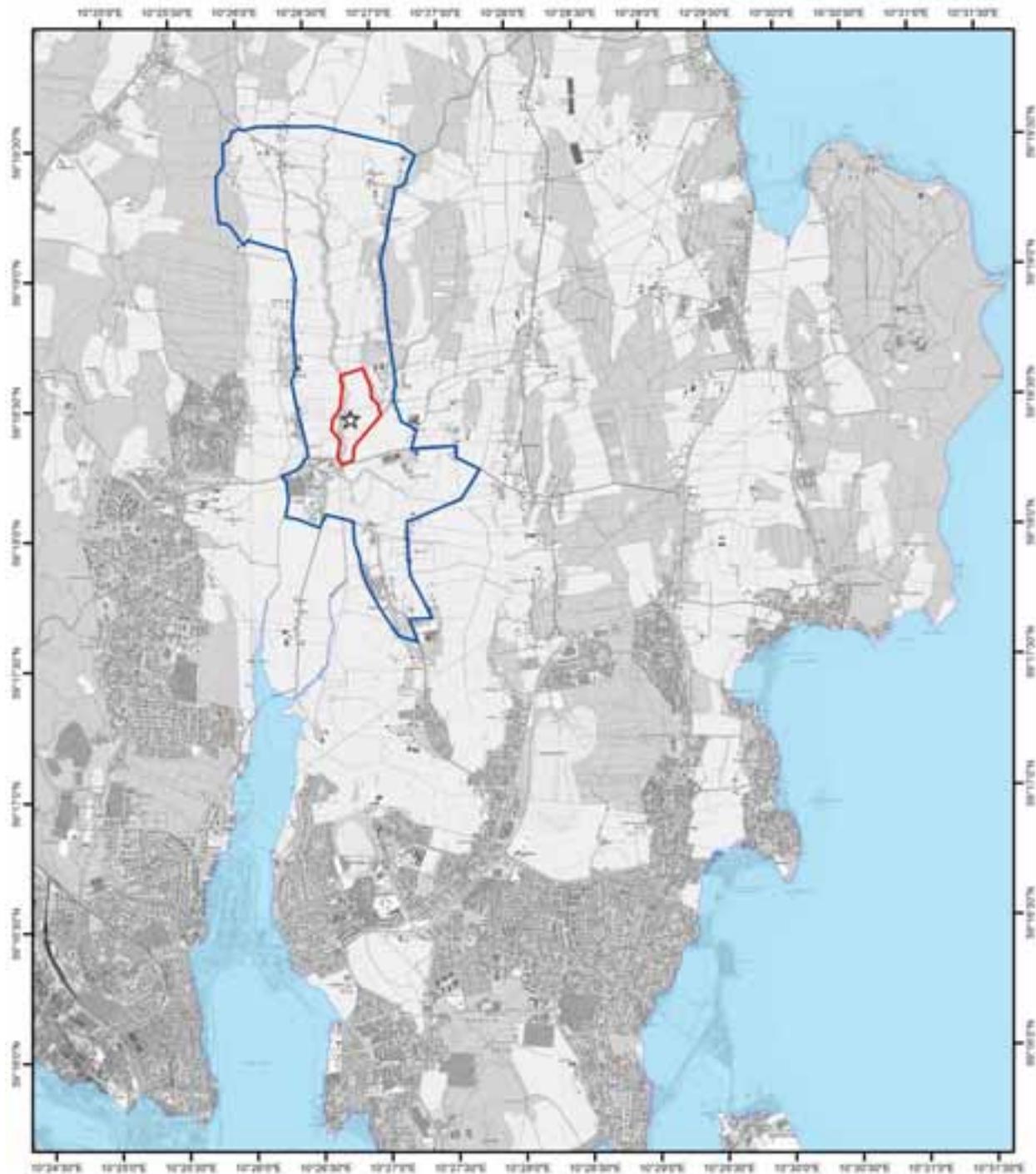


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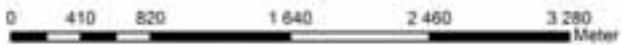
Viking Age sea level
Borre, Horten municipality
Legend

- ☆ Burial mound field
- Buffer zone
- Nominated area
- Viking Age sea level

Map 09 Viking Age sea level at Borre. ©Vestfold County Authority.



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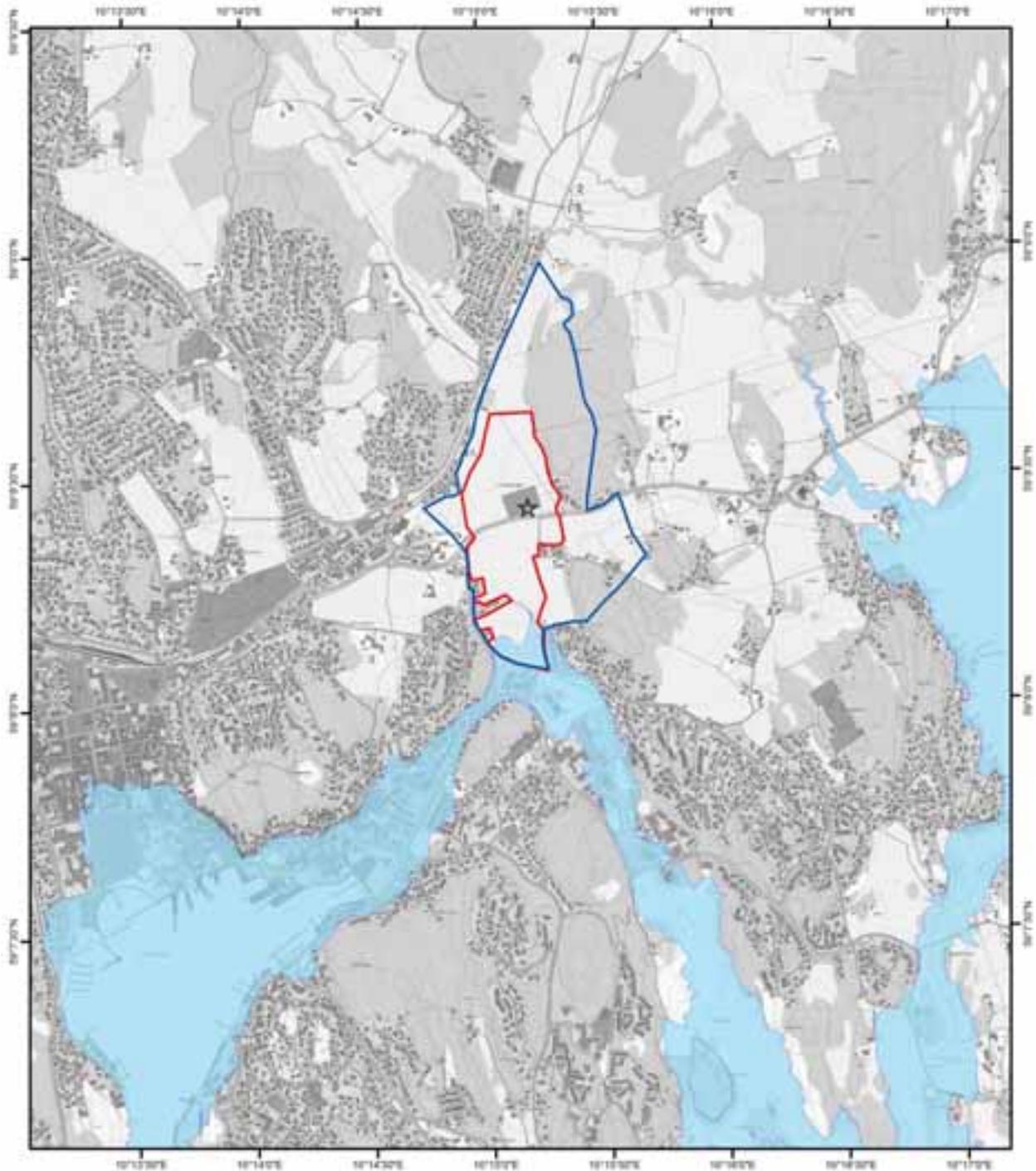


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**Viking Age sea level
Oseberg, Tønsberg municipality
Legend**

- ☆ Burial mound/field
- Buffer zone
- Nominated area
- Viking Age sea level

Map 10 Viking Age sea level at Oseberg. ©Vestfold County Authority.



**Viking Age sea level
Gokstad, Sandefjord municipality
Legend**

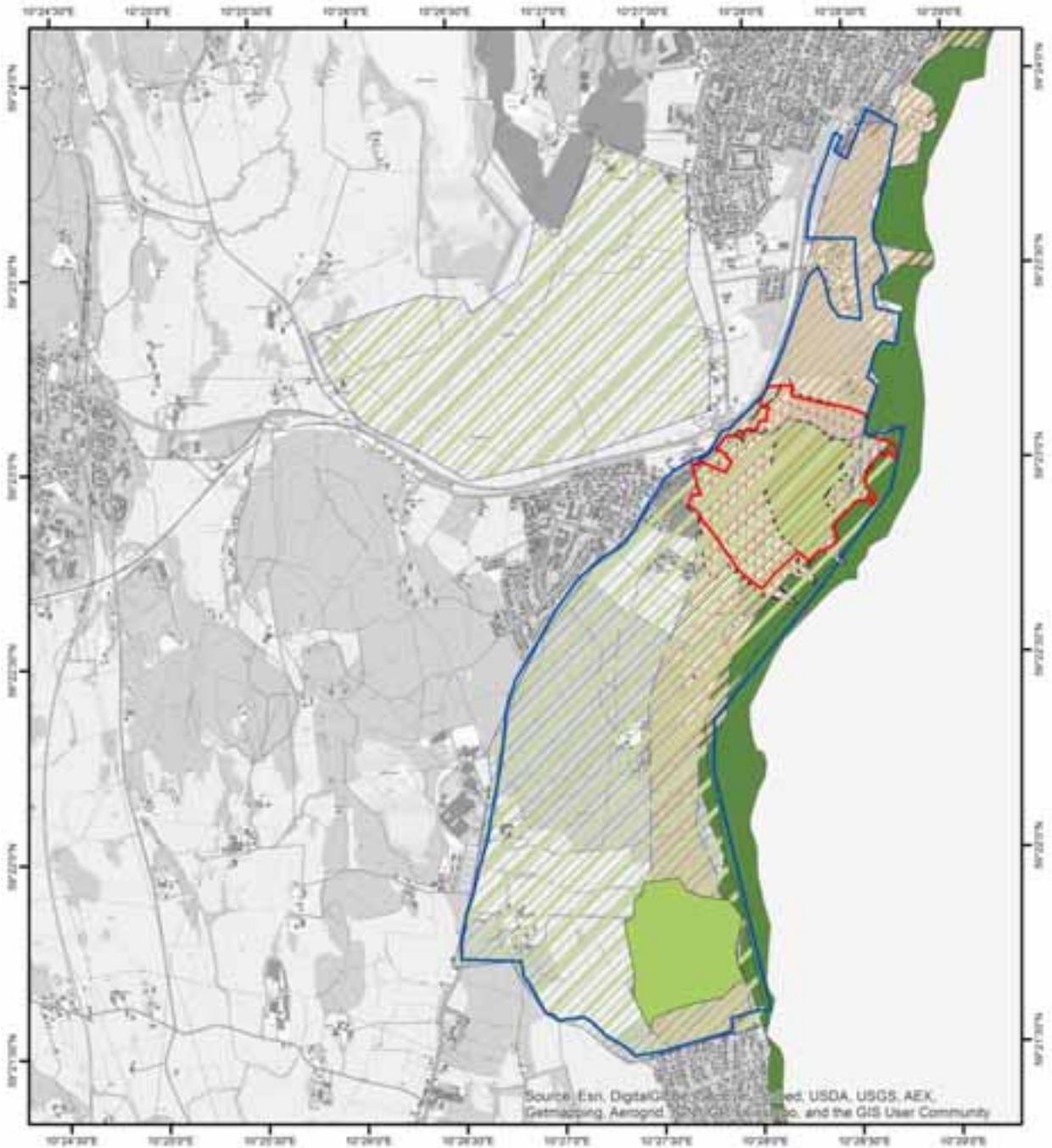
- ☆ Burial moundfield
- Buffer zone
- Nominated area
- Viking Age sea level

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Map 11 Viking Age sea level at Gokstad. ©Vestfold County Authority.



Zones for special consideration

Borre, Horten municipality

Legend

-  Buffer zone
-  Nominated area
-  Zone requiring consideration, landscape
-  Zone requiring consideration, recreational area
-  Protected nature
-  Restrictions under the Nature Conservation Act
-  Restrictions under the Cultural Heritage Act

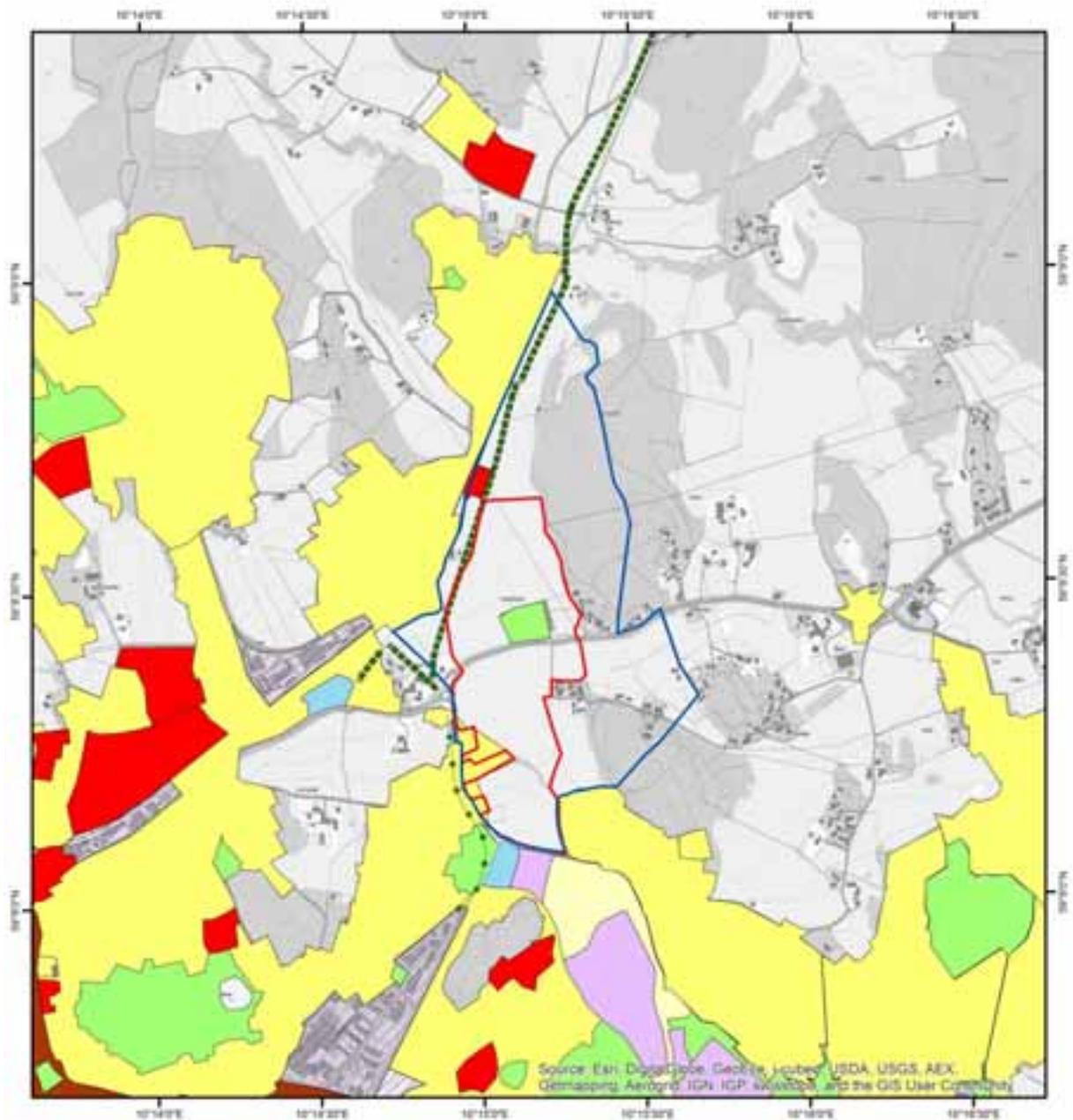


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Map 12 Zones for special consideration. Borre, Horten municipality. ©Horten municipality.



**Zooning
Gokstad, Sandefjord municipality**

Legend

-  Buffer zone
-  Nominated area
-  Planned road
-  Pedestrian path
-  Centre area
-  Former waste disposal area
-  Mixed purpose
-  Public buildings
-  Offices, warehouses and industry
-  Public utility purposes
-  Public recreational areas
-  Dwellings



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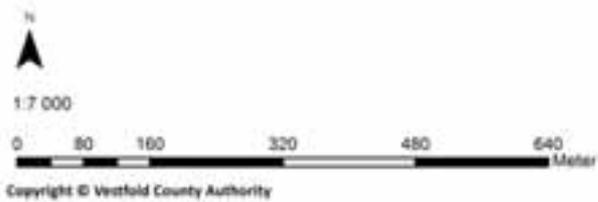
Map 14 Municipal master plan. Gokstad, Sandefjord municipality. ©Sandefjord municipality.



**Management zones in the Borre Park
Borre, Horten municipality**

Legend

-  Buffer zone
-  Nominated area
-  Grasscutting
-  Haymaking
-  Manual clearing
-  Not maintained
-  Pasture



Map 15 Management zones in the Borre Park. ©Vestfold County Authority.

ANNEX II PHOTOS



Photo 01 Borre. The nominated area of the Borre burial field is situated in an open woodland stretching between the cultivated fields and the sea. The nominated core area also covers the cultivated ground just behind the wood. Photo: Arve Kjerseim, The Directorate of Cultural Heritage.



Photo 02 Borre. The nominated area and the buffer zone seen from the sea. The nominated area of the Borre Park with the possible harbor is the foreground. On the left, a glimpse of Borre Church from ca 1150 and the Borre Vicarage. This marks the boundary of the buffer zone to the inland area. The buffer zone also covers the wood between the core area and Horten town to the right. Photo: Arve Kjerseim, The Directorate of Cultural Heritage.



Photo 03 Oseberg. The nominated area of the Oseberg mound. The Oseberg stream runs to the left of the mound. The Oseberg farms to the right. Photo: Arve Kjersheim, The Directorate of Cultural Heritage.



Photo 04 Oseberg. The nominated property and the buffer zone. The Slagen Valley is open and wide, and reaches down to the sea about 3.5 kilometres away. The ship was dragged across land from the sea to the gravesite. The nominated core area is delineated by the road crossing the middle of the photograph, while the buffer zone continues towards the farms in the distance on the left in the photo. Photo: Arve Kjersheim, The Directorate of Cultural Heritage.



Photo 05 Gokstad. The nominated area of the Gokstad mound. Photo: Arve Kjersheim, The Directorate of Cultural Heritage.





Photo 06 Gokstad. The nominated area and the buffer zone. Today, the Gokstad mound is just over one kilometre from the sea, but in the Viking Age the shoreline crossed the field in front of the office building to the right in the photo. There is a Viking Age settlement of Heimdal in the same field that has been partly excavated. Lower Gokstad to the left is one of several farms that surround the Gokstad mound. The nominated core area covers most of the cultivated ground on the picture, while the suggested buffer zone includes the farms and part of the forest-covered hill to the left.

Photo: Arve Kjerseim, The Directorate of Cultural Heritage.



Photo 07 Borre. Historic drawing of the burial field of Borre from 1832. . The engraving was published in Jacob Aall's Snorre Sturlesons norske Kongers sagaer, (Snorre Sturleson's sagas of the Norwegian kings) vol. 1, page 36. The 'ship's mound' is on the righthandside. The mound was removed in 1852 and its contents used to build a road. Engraving: Johannes Flintoe, 1832. Owned by the National Gallery/The National Museum for art, architecture and design.



Photo 08 A Horse collar from the now lost 'ship mound' of Borre.
 Photo: Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.



Photo 09 Borre excavation, 1927. Hougen and Engelstad excavated some of the smaller mounds.
 Photo: Bjørn Hougen, 1927.



Photo 10 On this map from 1973, Aslak Liestøl explains Johannes Flintoe's location when he was drawing the burial site in 1832. The artist must have stood at the point where the diagonal lines meet on the top left side. Map: Aslak Liestøl, 1973. Kept in the Topographic Archives at the Museum of Cultural History.



Photo 11 Geophysical survey at Borre, winter 2013. The survey revealed the third and largest longhouse at Borre at the field between the Borre Park and the Borre Church. Photo: Christer Tonning.



Photo 12 On Monday 13 June 1904, the ground was first broken on the Oseberg mound. Here is the excavation crew, photographed on 21 September the same year. Professor Gabriel Gustafson, third from the left, headed the excavation. The profile wall under the onlookers clearly shows how the mound was erected. There is still a significant amount of scientific material conserved in the restored mound. Photo: Olaf Væring.

Photo 13 The Oseberg ship. The ship is exhibited at the Viking Ship Museum in Oslo. Photo: Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.





Photo 14 Sledge from Oseberg. Photo: Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.



Photo 15 Cart from Oseberg. Photo: Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.



Photo 16 Reopening of Oseberg. In 2007 the skeletal remains of the deceased were removed from the mound in order to ensure future preservation and research. Photo: Anitra Fossum.



Photo 17 (left) Gokstad excavation in 1880. Most of the grave mound remained untouched. The scientific project named Gokstad Revitalized started up in 2011 with the aim of making new studies of the monument, the grave goods and the landscape Photo: Unknown.



Photo 18 Gokstad excavation, 1880. Spectators viewing as the ship is uncovered. Photo: Unknown.

Photo 19 The Gokstad Ship at the Viking Ship Museum, University of Oslo. Photo: Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.





Photo 20 Burial chamber and small boats from Gokstad mound. The boats are exhibited at the Viking Ship Museum in Oslo.
Photo: Eirik Irgens Johnsen, Museum of Cultural History, University of Oslo.



Photo 21 Reopening of Gokstad. As at Oseberg, the skeletal remains were removed in 2007 as a means to safeguard their preservation and ensure future research. Photo: Anitra Fossum.

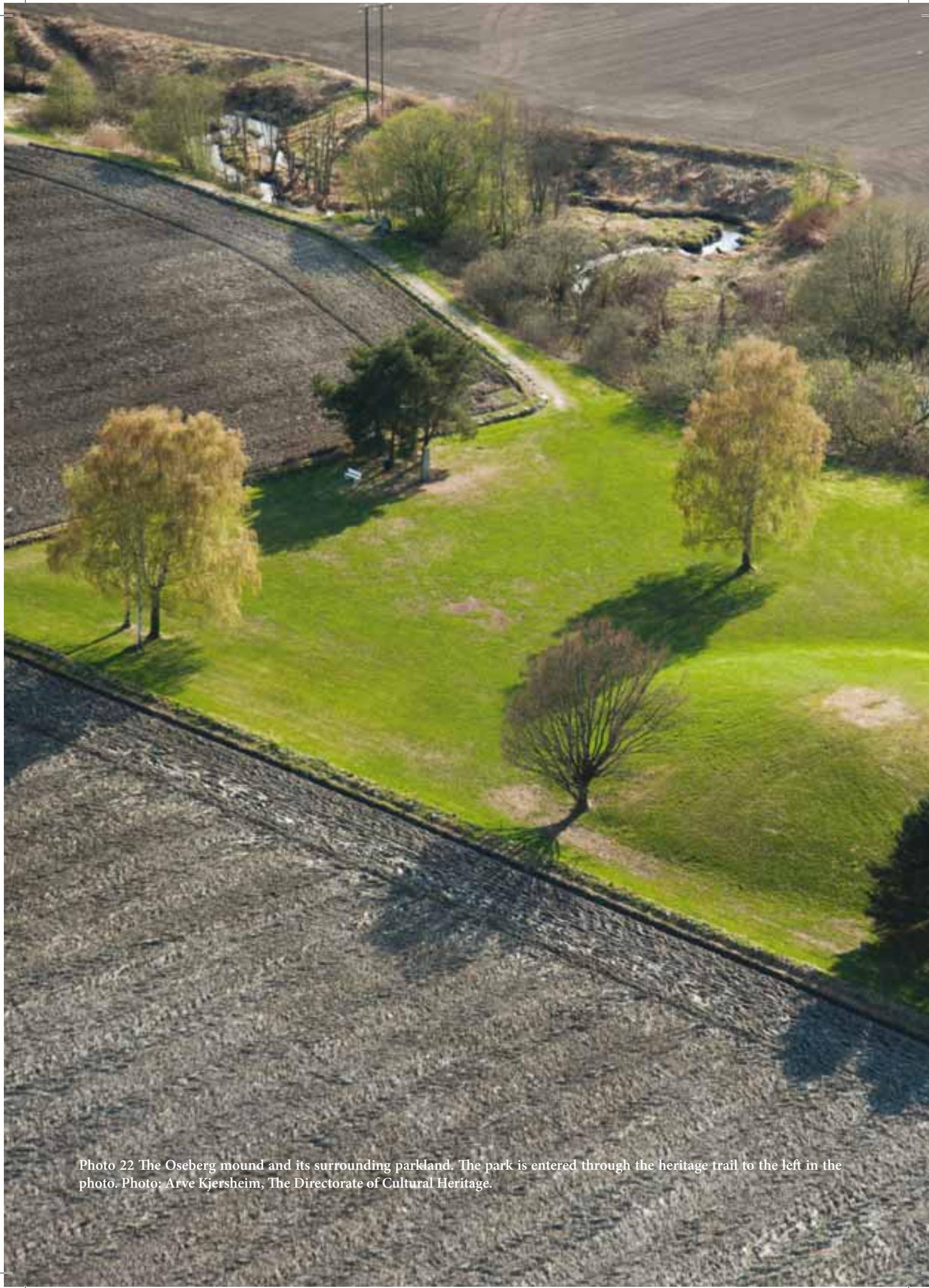


Photo 22 The Oseberg mound and its surrounding parkland. The park is entered through the heritage trail to the left in the photo. Photo: Arve Kjerseim, The Directorate of Cultural Heritage.





Photo 23 The Borre Park. The park includes around 50 smaller and larger mounds and is actively used as a recreational area by the local community. Photo: Arve Kjerseim, The Directorate of Cultural Heritage.



Photo 24 The Gokstad mound, its surrounding parkland and the parking lot. Photo: Arve Kjerseim, The Directorate of Cultural Heritage.



Photo 25 Midgard Historic Centre is situated just outside the Borre Park. It is the gateway for experiencing and learning about Viking Age Vestfold. Photo: Arve Kjersheim, The Directorate of Cultural Heritage



Photo 26 Cultural trail leading to the Oseberg mound. Along the trail there are several signs with information about the excavation, the deceased and the ship. Photo: Arve Kjersheim, The Directorate of Cultural Heritage.



Photo 27 Monument with information signs and benches at Gokstad. The visitors can learn about the Gokstad man, the ship and the finds.
Photo: Cathrine S. Engebretsen.



Photo 28 The research project of Gokstad Revitalised: Here the drill rig is at work taking out 70 soil samples from the Gokstad mound, October 2011. Photo: Anitra Fossum.



Photo 29 Gokstad Revitalised: Archaeologists examine and document the cores from the Gokstad mound, October 2011. Photo: Anitra Fossum.



Photo 30 School children visiting Borre through the 'Cultural Rucksack'. Photo: Arve Kjerseim, The Directorate of Cultural Heritage.

ANNEX III EXTRACT FROM PLANS OF MAINTENANCE

EXTRACT FROM

OVERALL PLAN FOR BORRE PARK 2007 – 2015

Chapter 4 of the plan – Maintenance plan for Borre Park, excerpt

4.1. Brief summary

The proposed measures will ensure that the Borre Park and its surroundings will be managed in a manner that will protect its integrity and enhance the area as an attraction, while enabling the area to carry a higher number of visitors in the years to come. The management plan includes targeted felling of trees as well as clearing and maintenance of six sectors. The park is managed in five zones, with specific measures foreseen for each zone. The recommended felling of trees will be an important prerequisite for the long-term maintenance promoted by the plan. These measures are required for the management of a cultural heritage site of national value.

The park was established as a means to protect the large burial monuments, and the current plan is a continuation of those efforts. The cultural heritage monuments located in the park will continue to stand out in the landscape and be visible, especially from the landward side, and thereby ensure that the relationship between monuments, landscapes and human activity in the past and the present is maintained.

The Borre Park is to serve as a heritage site where the Viking Age is showcased in a hands-on and engaging manner. With its large mounds, the Borre Park occupies a central position in national and international history, and both the location and the mounds are mentioned in poems, tales and sagas. The Borre Park is therefore not only a regional management responsibility, a heritage site of national concern. It ought to be in the national interest to manage the site as one of Scandinavia's Iron Age/Viking Age mantelpieces.

As a long-term goal, the costs of operation and maintenance of the Borre Park should be covered over the national budget, and when supplemented with regional and municipal funds this will ensure long-term and appropriate maintenance.

4.2. Plan, objective and strategy

The maintenance plan for Borre Park has been compiled on the assignment from the county council. Planning work has been overseen by the Midgard Historical Centre, and the plan has benefited from professional input and contributions by Eivind Orre, Landscape Architect, and Ivar Udahl, Master Landscaper.

Vestfold county authority, represented by Midgard Historical Centre, is responsible for the maintenance and development of the cultural heritage park. The main objective of the plan is to open the landscape towards the fjord, to enhance the view from the mounds towards the fjord and to some extent increase the visibility of the mounds when seen from the fjord. As a means to reach this goal, only actions which will sustain the long-term management of the park will be taken. The rationale behind the planned actions is to be provided.

Enhancing the relationship between the cultural monuments, the landscape and the fjord, the maintenance plan aims to enhance the sense of history, identity and belonging. The relationship between the monuments and the fjord is regarded as paramount for the location, and the maintenance plan is therefore based on this assumption. The mounds will become far more visible in the landscape, and the fjord should once again regain its role as an arena for experiencing the cultural landscape. As a general intervention, six sectors will be opened up to provide views in addition to a considerable thinning of the forest cover.

This objective is based on a deliberate choice which gives high priority to the area's cultural historic value. The recreational value and concerns for nature conservation will also be taken into account, but the priority given to the area as a cultural heritage site has an obvious basis: The area has been listed and is protected because of its cultural monuments and sites.

4.2.1. Arguments and priorities

The objectives defined by this plan are based on the following reasoning:

Natural-science and chronology

With the aid of scientific methods, the mounds have been dated to the period 600-950 AD (Myhre 1992, 2003a, 2003b). The oldest mounds appear to be Mound 6 and Mound 7 in the south-eastern corner of Borre Park. At that time, the sea level was 4-5 metres higher than today, and the two oldest mounds were built near the beach. The relationship to the fjord must have been of primary importance, and the choice of location clearly reflects this. The establishment of the burial field close to the Viking Age shoreline, thereby making the mounds clearly visible from the fjord, should be a decisive factor in future management and interpretation of the site.

Vegetation-history

The pollen analyses undertaken in the context of the Borre Project (1988-1992) showed that the mounds were built in a very open landscape. In a landscape dominated by cultivated land and pastures, in the Viking Age the mounds emerged as prominent features in the landscape, easily observable from the landward as well as the seaward side.

The location of the necropolis in the landscape

The Borre mounds constitute a necropolis, a collection of monuments to the dead. Locating a burial field along traffic arteries is a cultural feature which can be observed in large parts of Europe, from the Stone Age to the present era. Located along the fjord the mounds communicate their symbolic message to those who passed by. How are we to understand the relationship between the living and the dead at Borre?

Visual experience

A comprehensive felling of trees in Borre Park will transform the experience of the landscape. Thereby, we will achieve two objectives that together will enhance the qualities that we wish to underscore: The area becomes more open and will assume a character more similar to what it had when the mounds were built. In an open landscape with visible contrasts, distances are perceived as shorter than when the area is visually blocked by shrubs and dense treetops. Having open sightlines between the mounds will enable visitors to see them in context, and provide a more impressive experience than when the mounds are experienced individually. The sense of monumentality will increase, and the experience of how the area stands apart from the

surroundings will be more distinct and perceptible. As a result, the mounds will constitute the core of a large sweep of landscape that includes the fjord.

Interest groups and priorities

The Borre Park is a recreational area where people go walking. The recreational and natural values of the Borre area will not outweigh the preservation of the cultural heritage, but will be taken into account. There are few indications that the recreational interests will be weakened as a result of fewer trees in the park even if it will create a different experience for the visitors. So far the response from park users has been unambiguous: Visitors clearly express their enjoyment of having an open view to the sea, and being able to wander through an open landscape instead of “corridors” of vegetation. With the proposed measures of care, the uniqueness of the Borre Park will be enhanced in comparison with other forest and park areas in Vestfold county. As a result its recreational value will be more closely associated with the culture historic nature of the site.

However, it should be stressed that the bio-diversity and conservation interests associated with hole-nesting birds and red-listed fungi are integrated into the plan. Furthermore, a rare orchid species is registered in the park, and it will be preserved to the largest extent possible. The chief forestry officer in the agricultural department of the county governor’s office will undertake the selection of trees for felling, in cooperation with competent personnel from Horten municipality and Midgard Historical Centre.

4.2.2. A holistic approach

The Borre Park and its surroundings should be regarded as a single entity. This principle implies that areas immediately to the south and north of the park’s boundaries must be included in the maintenance plan. The need for a holistic approach to recreational values, preservation of cultural heritage, bio-diversity and visual qualities requires adjacent areas to be taken into account during maintenance. The adjacent areas to the north are owned by Horten municipality, which during the last fifteen years has been unable to restrict the vegetation cover. The area to the south of the park is owned by the Government through “Opplysningsvesenets Fond” (an independent legal endowment), but is leased by Horten municipality. The municipality has announced its interest in acquiring this area, with a view to developing it for recreational purposes.

The planned strategy for reaching these objectives comprises two stages. The first stage will consist of species determination of trees and the actual felling. There will be a need for systematic felling through several winter seasons, and on 19 June 2007 the county council granted NOK 750,000 for this purpose. The second stage will comprise of supplementary felling and facilitation of long-term maintenance and upkeep of the park.

4.3. Maintenance history and background – organisation of responsibilities

Borre National Park opened on 19 July 1932. Vestfold County Authority leased the ground on the basis of contracts dated 9 November and 10 December 1934, approved by the Ministry of Culture on 7 March 1935. Subsequently the management of the park followed a set of separate by-laws adopted by the county council in 1937 and later amended in accordance with a new political structure in 1990. The county council is the supreme authority in matters related to the park. At the time, the county council delegated the daily responsibility for the park to the Vestfold Board of Culture (cf. Section 1 of the by-laws). This authority was later transferred to

the Regional Planning and Environment Commission, and subsequently delegated to the county's department of culture, represented on the site by Midgard Historical Centre.

The park was previously supervised by a commission appointed by the county council. This commission had five members: The Regional Planning Commission appointed three members, including the chair and the deputy chair, the other two members were appointed by the Collection of National Antiquities/the Museum of Cultural History and the Directorate for Cultural Heritage. Horten municipality, represented by the Director of Culture, attended the commission's meetings as an observer. The commission was dissolved following a unanimous decision by the county council on 24 August 2004.

The park area is protected (1990) and the *Cultural Heritage Act* (from 1978) sets clear limits the scope of actions undertaken within the park.

4.3.1. Vegetation history in words and images

Ever since the supervisory commission held its first meeting, minutes have been taken. This source material is comprehensive, and is mainly of interest to professional historians. In brief, the minutes bear witness to good intentions, but the organisation of the maintenance failed to produce long-term and systematic maintenance results. Efforts included concentrated campaigns to fell trees and clear the undergrowth. However, the operation and maintenance of the park have suffered from insufficient funding frameworks.

On 28 May 1915, Professor Anton Wilhelm Brøgger and Curator Sigurd Grieg inspected the Borre mounds, and levelled and measured the height of several of the larger mounds. In their report, Mound 5 is described in the following manner: *"It remains one of the most impressive of the mounds on the site... It is located in a wild forest, and is itself quite overgrown with forest"* (Brøgger 1915a:7).

Today, just as 90 years ago, the main challenge remains the same: Those who are responsible for maintenance are unable to keep up with the growth of the vegetation. Insufficient financial resources have always been cited as the reason for the absence of long-term maintenance at Borre, and maintenance plans have either failed to elicit support (Liestøl 1965) or have not been accompanied by sufficient funding (Ekland 1991). In Borre Park in 2005, it remains difficult to see the mounds among the trees.



Figure 6: This picture is taken from the west by Professor A. W. Brøgger on 28 May 1915, and shows Sigurd Grieg standing on Mound 3, which at the time was densely overgrown by spruce, birch and juniper (Photo © Museum of Cultural History, Oslo).



Figure 15: North of Borre Park, the forest is dense and impenetrable after 15 years without maintenance (Photo taken by Terje Gansum in 2005).



Figure 17: From the fjord, not a single mound is visible. The only testimony to the maintenance of the area is the fact that the shrubs and the undergrowth in the beach zone and between the trees have been cleared. The view from the fjord, which represented a visual quality at the time when the mounds were built, is currently blocked. The cultural monuments are no longer visible from the fjord. (Photo: Terje Gansum).

4.3.2. Brief summary

Upkeep of the park has been characterised by a scarcity of resources for maintenance. The annual grants have been spent on mowing the grass and maintaining of the service facilities and the kiosk. Interventions requiring additional resources were discussed by the supervisory

commission, which coordinated the collection of funding from ministries and the county council, as well as from endowments. The interventions appear to be one-off efforts, and a long-term solution to the lush growth and the numerous trees blocking views of and from the park has not been found, in spite of 70 years of discussions among experts and the public.

4.4. Interventions for upkeep of the cultural monuments in Borre Park

Inside the stone wall there are 44 registered burial sites, which vary in size and shape. No complete and detailed registration of each burial site is available. A documentation of the mounds will be undertaken as part of the management of the park.

The boundaries of the Borre Park were defined in the early 1930s. At that time, not all of the cultural monuments were located inside the delimitation of the park. For example the Skipshaugen (“The Ship Mound”) lay outside the stone wall that encircles the park. After having been destroyed by road workers in 1852, the mound was examined by Nicolay Nicolaysen in the same year, and it was re-examined by Bjørn Myhre in 1989 (Myhre and Gansum 2003).

In the following we will outline the principles for tree felling, which are primarily based on visual criteria, such as sightlines and sectors.

4.4.1. Tree-felling and visual design

The main goal of the plan is to obtain a more open landscape, and the felling of trees is therefore the most important intervention in terms of changing the experience of the park. Trees are easily felled, but it takes a long time for them to grow back. It is therefore essential that the changes introduced are well conceived and fully justified. The felling will take place over three seasons in order to avoid unwanted windfalls. Trees will be selected after an inspection involving representatives of the county governor, Horten municipality and Midgard. Trees home to red-listed hole-nesting birds should be spared unless this conflicts with cultural heritage interests, and a representative of the Norwegian Ornithological Society in Vestfold county will mark trees for preservation during an inspection together with a representative of Midgard Historical Centre. Trees in all stages of their life cycles must be represented in the park, and some dead trees should be left since they constitute an important habitat for red-listed species of fungi. Trees that are well suited for climbing should also be registered and left standing.

The current tree vegetation comprises various deciduous species, but they do not reflect a natural combination of species. All conifers in the park have been felled as a consequence of deliberate choices taken with regard to maintenance of the park and will not be re-introduced. The efforts to develop the vegetation composition are based on choices that will be reflected in the resulting vegetation cover.

The vegetation and the soil conditions can best be described through the zoning of the park. The zones reflect certain qualities of parts of the park as well as the resulting challenges for maintenance. The subdivision into zones is not static or unalterable; it has been undertaken to simplify the efforts involved in making optimal choices with regard to interventions in a particular area. A more detailed description of the zones can be found in the report on long-term maintenance work.



Figure 19: Aslak Liestøl's map of Borre Park, subdivided into zones.

Oak trees can reach a very high age, and nurture impressions of past times. Thereby, oak trees impart a character of ancient history, as do ash trees (*Fraxinus excelsior*), through their link with the mythological tree Yggdrasil. Giving deliberate priority to these three species will give the park a specific identity with an intended venerable character. This deciduous forest will be suited to an open landscape that promotes the visual character of the cultural monuments. As a result of this decision some tree species will be removed. Aspen trees (*Populus tremula*) will be felled throughout the area, except where they are preserved as nesting trees for birds. The aspen trees are mostly of poor quality, and do not contribute significantly to the character of the area in terms of its cultural history. Aspen trees represented 80 per cent of the windfalls in the park during the winter of 2006-2007. A proposal to ring-bark aspen trees to prevent the growth of new saplings and to provide habitat for birds and fungi with a view to ensuring bio-diversity will be assessed by the group that will inspect the park prior to the tree-felling.

All birch trees (*Betula*) should be felled, with the exception of some trees that help create local character and aesthetic variety in the landscape. There are several reasons why the birch trees should be removed:

- Birch trees rarely reach an age of more than 100 years, and are associated with young forests.
- Most birch trees in the park are relatively large and old. Felling undertaken in the autumn of 2004 revealed that approximately 85 per cent of the birches had internal rot, in spite of their healthy appearance.

- Birch foliage is dense, and even a relatively small number of trees can suffice to block views from and of the park.
- Removal of the birches will distinguish the park from its immediate surroundings, which is an objective of the intervention.

Oak and ash trees will be given priority in zones 1, 2, 3 and 6. Black alder (*Alnus glutinosa*), linden (*Tilia cordata*) and beech (*Fagus sylvatica*) should be preserved only where they help provide variation in the experience of the landscape in zones 2, 4 and 5, to supplement oak and ash trees.

The stone wall around the park was completed in 1938, and was a result of the decision to establish the national park in 1932. The wall protects the park and is a landscape element that needs to be maintained and emphasised. All trees growing next to the stone wall must be felled, since their roots will destroy the wall foundations. Trees forming part of the wall can be left standing according to individual assessment, if a felling would destroy parts of the stonework. Solitary trees that have particular aesthetic qualities when seen in combination with the stone wall may also be assessed for preservation.

In certain locations we find wetland in the form of small ponds or streams. These shady locations have produced a characteristic marsh flora. Around these, a number of trees should be left to provide shade.

The general approach consists of opening six sectors/corridors that provide views of the park from the fjord and vice versa, as well as views between the mounds, and also undertaking a comprehensive thinning of the forest cover. The descriptions of the sectors are supplemented by a map where the sectors are outlined. The sector-based strategy does not involve a total deforestation of these areas, since solitary trees will be left standing after individual assessment. The sector boundaries should not appear as clear divisions in the landscape, but have an irregular shape that will blur the sector boundaries. The strategy will provide a direction for the felling of trees, and emphasise the meaning and location of the cultural monuments.

Sector 1

From position 1 on the large plain, the vegetation cover will be thoroughly thinned towards the south, to make the Spellemann mound and the bay emerge clearly as landscape elements. The opening of the landscape in this direction will establish visual contact from within the park towards the south, to the entire section of coast between Borre and Åsgårdstrand. The small mounds in the southern end of Borre Park will become more visible. When we know that other mounds have been located between these and the Spellemann mound, there is also a historical argument to open a visual contact between these burial monuments.

Sector 2

From position 1 on the large plain, Sector 2 will open the vegetation towards the fjord to the east of Mound 7. A somewhat improved view towards the fjord has already been established in this area, but it is desirable to enlarge this even more, to render the connection between the fjord and the location of the cultural monuments more perceptible in the landscape. The sightline ends in a point located to the north of Slagentangen. At this angle, ships heading into the fjord

would have established their first visual contact with the gravesite on the shore. Thus rendering Mound 7 visible from the fjord is one of the objectives.

Sector / corridor 3

The view from and of Mound 6 and promontory no. 40 with its tree cover is very restricted because of the dense vegetation in Sectors 4 and 5. A corridor will be opened from the area south of the Prestetangen promontory up to and including the promontory, or alternatively a sector with a width of 50-60 metres. Vegetation will be preserved there to enhance the spatial effect of the bays to its north and south.

Sector 4

Mound 4 is located in the north-eastern corner of the Borre Park, majestically placed on the edge of an old beach terrace. The location of the mound is well chosen. The placement on an elevation in the landscape creates the impression of a giant mound when seen from the north-northwest. In its present condition, the vegetation blocks this impression completely. A 50-60 meter wide corridor will open views of the mound from the fjord and vice versa. Since the vegetation is extremely dense in this area, some thinning will be required on each side of the corridor to avoid sharply-defined edges in the cleared sector. The degree of thinning must be seen in conjunction with Sector 6.

Sector / corridor 5

This sector departs from a position on the plain of "Dyrskusletta" and directs attention to the south towards the forest-clad promontory and Mound 7. The intention here is to establish a better internal visual cohesion in the north-south direction in the central area of the park. At the moment, the forest here is so dense that the interrelation between the mounds is broken unnecessarily. Clearing will be required to enable visitors to see the mounds as an integrated whole.

Sector / corridor 6



A holistic plan for the park must take account of the area to the north of the park. Today, this area is covered by impenetrable, young deciduous forest which has been left to grow for 17 years. Here, all visual qualities are blocked by a green wall of foliage in summer and a brown jungle of branches and twigs in winter. In its current state, the area disfigures the experience of Borre Park to an extent that most likely violates the provisions for the protection of the region enacted in 1990. The area must be cleared to let the cultural monuments emerge in a clear-cut manner in the landscape, and establish contact with the top of the moraine to the northwest. A clearing and thinning towards the northeast will also enhance the experience value when seen from the north and northeast from the fjord.

Figure 22: Orthophoto where the sectors are highlighted and the view from the park towards the fjord is illustrated

by arrows (Illustration: Eivind Orre).

In this area, consideration should be given to retaining groups of tall trees up to 7-8 metres and undergrowth in order to permit more variation in the landscape and to distinguish this area from those inside the park.

Implementation of the tree-felling programme

The intervention plan for the felling of trees accounts for a large single cost item, and on 19 June 2007 the county council granted NOK 750,000 (incl. VAT) for this purpose. The tree-felling will be implemented in two stages.

Stage 1: The first stage of the intervention comprises an assessment of each tree in the park, and identification of trees that are diseased or in some way represent a hazard to visitors. Furthermore, trees that are too densely grouped or lack aesthetic qualities will be marked for removal, in accordance with the strategy described above. The six chosen sectors will be established through targeted felling of trees during the winter season in the period 2008-2010. The implementation of this stage will be the most labour-intensive part of the intervention plan. Felling, de-branching and transport must be undertaken in the winter season while the ground is frozen. Trees to be felled will be inspected by competent staff to ensure best use of the timber through proper felling. All stumps left after the felling must be cut to a low height, and chippings must be transported to the location decided.

Stage 2: Work will start in the growth season of 2009, and include an assessment of the need for further thinning at times with and without foliage on the trees. Throughout the spring, summer and autumn, additional trees will be marked for felling. This also applies to areas outside the prioritised open zones. At stage 2 the tree-felling will be less comprehensive than at stage 1, and it will be implemented as soon as the ground freezes in the autumn and winter of 2010.

Upkeep of the mounds

Upkeep and maintenance of the mounds in the Borre Park face several challenges. All parts of the park, including the mounds, are open to visitors. Traffic up and down the mounds wears off the vegetation cover and causes erosion. This erosion damages the cultural monuments, and protective measures have been needed. Erosion damage has previously been repaired by laying down fibreglass mats and filling up with soil which is sown. These measures have had some effect, but erosion recommences when the traffic returns.

In November 2004, the eroded parts of the large mounds were filled in using bags of soil with added seeds. The bags have prevented further erosion, and the seeds have sprouted into meadow plants that are integrated into the flora on the mounds. A total of 20 cubic metres of soil bags were added and fenced off with a rope in June-July 2005. Public access to the mounds was ensured, even though some of the mounds were fenced off. Erosion damage to the mounds caused by traffic will be continuously repaired, and will be included in park operations. The alternative is to close the mounds for traffic. This closure will require fences, which will constitute an alien element in direct proximity to the mounds. This is undesirable, since it will establish a distance between the visitors and the monuments. A distance established in this manner will impinge on the experience of being able to explore and discover the qualities of the location. It will detract from the value of the area, since the area promotes accessibility and proximity to the structures of the past.

Shrubs and trees should not be left on the mounds. Some exceptions will be made to the rule that the mounds should have no trees. These exceptions include the beech tree on Mound 5, as well as two linden trees on Mound 7. These trees add character and have uncommon aesthetic qualities that are prized in combination with the formation of the mounds. For the time being, these trees will be left standing. All ditches at the foot of the mounds should be cleared of shrubs and saplings at all times. This requires use of clearing saws and approved herbicides.

Undergrowth – livestock grazing

From an operations perspective, the growth of the ground flora represents the main challenge to the maintenance of the park area. Regrowth is the largest threat to a positive experience of the cultural monuments in the Borre Park. In those parts of the park which are not mowed, the ground flora grows at an explosive rate during the entire growing season. During the seasons of 2003 and 2004, an annual growth of 70-120 cm was measured for raspberry thickets, nettles and aspen. After only two seasons without ground clearing, paths through this area are perceived as corridors through a closed landscape. Most of Borre Park consists of areas of such a demanding nature. Comprehensive annual maintenance is labour-intensive, but necessary in order to ensure an open landscape where visitors can orient themselves. A key challenge is to identify long-term interventions that can preserve the open nature of the landscape.



Figure 23: Photos of a mound after repairs in November 2004 and of the result in the summer of 2005 (Photo: Terje Gansum).

Large sections of the park (zones 2-5) are characterised by this kind of rapid undergrowth. In terms of its size, the area is too large to be suitable for manual clearing at an acceptable cost. To keep the low vegetation in check, establishing pastures for livestock grazing will be the most appropriate solution. Livestock grazing must be weighed against the limitations and possible conflicts that may occur in relation to the use of the area for recreational purposes. Fences could be perceived as barriers, or as alien elements. Disturbances such as stray dogs could constitute a problem for the grazing animals.

Large sections of the potential pastures comprise relatively humid soil. Cattle and horses could therefore cause damage to the ground, and should not be allowed to graze in these sections. Sheep appear to be the most suitable animals to use, even though the grazing efficiency per head of sheep is significantly lower than for cattle. Each decare (tenth of a hectare) of rough grazing

will carry approximately six sheep with lambs, while the corresponding figure for cow-calf grazing is 1.5. A high number of sheep will thus be required to achieve a sufficient level of grazing intensity.

The areas to be used for grazing should be subdivided into plots to allow for rotational grazing of different areas. The boundaries of the grazing plots should take account of the paths and trails through the area to the largest extent possible. Plots where animals are grazing will be closed off, and the remainder will have gates that ensure unrestricted traffic. Styles can be established where necessary. The structure of the pastures should be considered in light of such criteria and in cooperation with the owner of the animals.

Experts recommend the use of sheep netting, since this solution is effective in terms of cost and has limited visual impact. This wire fence is low-cost in purchase and easy to mount, it is unobtrusive in the landscape and provides a measure of protection against stray dogs. Openings in the fence for passage can easily be made when the animals are not grazing.

Maintenance of the zones

The Borre Park covers approximately 17.5 hectares. In the following we will describe the current condition of the six zones shown in Figure 19 above, and the long-term maintenance measures recommended. The zones represent various challenges in terms of their maintenance. In all zones, it is essential that clearing and mowing is given equal priority on both sides of the stone wall encircling the park. The wall is a major landscape element, and should not become overgrown by vegetation.

A major issue with regard to the upkeep of the Borre Park involves protecting the ground surface from exposure to excessive pressure over an insufficiently large area. In practice, this means that large machinery cannot be used for maintenance purposes. Small lightweight tractors can be allowed, but the size of the machinery restricts the use of mechanised forms of maintenance.

Zone 1 (7.5 ha)

Current condition

This area consists of grassy plains with and without trees. The grassy parts of the park consist of well-drained soil types that previously have been cultivated. Here we can find birch, oak, linden, ash, aspen and beech. The trees are mostly old, with little age differentiation between them. In areas without lawn cover, the low-growing vegetation consists of grass, high-growing shrubs and herbaceous plants. This type of vegetation is prominent on and around the mounds. The large mounds were all but cleared of trees during the winter of 2004. The felling of trees on the mounds is a protective measure based on consideration for preservation of the interior of the mounds. Roots damage the cultural monuments by transporting and leading oxygen and water into the interior of the mounds, and thereby promote the activities of burrowing animals. Several of the mounds have base ditches that provide good conditions for herbaceous plants and shrubs.

Goals of the maintenance

After the felling of trees, the area will have an open character and should be preserved as an open and well-tended park landscape mainly consisting of large, mown grassy plains suitable for recreational activities. The mounds should stand out clearly and have an even grass cover. There

should be no trees on the mounds or in the base ditches. Some trees will be excepted, on the basis of individual assessment.

Long-term maintenance

The grass-covered plains will be mowed mechanically throughout the growth season. Some minor levelling can be undertaken to facilitate mechanical mowing of larger surfaces. Wear and tear on the mounds must be monitored, so that corrective measures can be applied before the damage becomes extensive. The base ditches must be cleared at least twice annually if they are to be perceptible in the terrain. Selected trees will be left to grow with a view to long-term renewal of the tree population. Oak and ash trees will be given priority.

Zone 2 (1.9 ha)

Current state

The area is covered by meadow, and the ground consists of cultivated soil which drains easily. The area is dominated by small mounds, and the vegetation chiefly consists of oak, aspen and birch trees. The undergrowth consists of tall grass, herbaceous plants and raspberry thickets, as well as ash saplings. The area has previously been mowed with an agricultural grass mower, and is not easily mown with an ordinary lawnmower.

Goals of the maintenance

The area will have a spacious tree population and the undergrowth of herbaceous plants and grass should be maintained. This undergrowth should be kept as low as possible to let the small mounds in the area emerge more prominently.

Long-term maintenance

Wherever possible, minor levelling and adding of soil can be made to facilitate mechanical mowing/cutting. Furthermore, the area will be maintained by removal of tree saplings with the aid of clearing-saws. Selected trees will be left to grow with a view to long-term renewal of the tree population. Oak and ash trees will be given priority.

Zone 3 (0.6 ha)

Current state

This zone covers the ruins of Mound 2, which was removed during the period 1850-1900. This mound was approximately 45 metres in diameter and as tall as the other large mounds. We have no knowledge of what happened to this mound. The soil in this zone is stony and the terrain is rugged. Each year the undergrowth grows to a large height, especially the ash saplings. The remains of the mound are visible mainly during winters with little snow and before the trees grow leaves in spring. All clearing is done with clearing saws.

Goals of the maintenance

Upkeep of the area should render the contours of the mound visible throughout the growing season.

Long-term maintenance

If the zone cannot be included in the grazing area, current manual upkeep with the aid of clearing saws will be continued. Treatment of the tree stumps with an approved herbicide such as Roundup will be necessary. If possible, the zone will be included in the area for grazing sheep.

Zone 4 (3.1 ha)

Current state

The area is covered by meadow, and the ground consists of cultivated soil, which is partly wetland. The predominant part of the area is a slope facing north. The vegetation is primarily composed of oak and birch trees. The undergrowth consists of tall grass, herbaceous plants and raspberry thickets, as well as ash saplings.

Goals of the maintenance

The area will retain a tree population after the felling. The undergrowth will be kept low to promote a gentle landscape covered in low grass and herbs between the trees. The area is not amenable to mechanical mowing, and is therefore currently maintained with the aid of clearing saws.

Long-term maintenance

As in Zone 5, this area should be designated as pasture for grazing sheep. Selected trees will be left to grow with a view to long-term renewal of the tree population. Oak and ash trees will be given priority.

Zone 5 (7.4 ha measured to the shoreline)

Current state

The area is characterised by dense deciduous forest and moist soil. Tree species include oak, aspen, black alder, birch, ash and individual linden trees. The forest grows so densely that even in winter the fjord is just barely discernible between the trunks. In this zone in particular, the view is completely blocked. In summer, a green wall appears to shut off the view of and from the fjord. The soil is very moist and all undergrowth grows with explosive force. The area was therefore cleared of all undergrowth in 2003. Maintaining the area with clearing saws is very labour-intensive.

Goals of the maintenance

After the felling of the trees the area will assume a completely different character, even though there is still a tree population. The undergrowth will be kept low to promote a gentle landscape covered by low grass and herbaceous plants between the trees. Brooks and areas with moist ground will be kept as wetlands with vegetation to provide shade. A field of alder trees in the northern end of the area should be left intact.

Long-term maintenance

Grazing is the most realistic method for keeping the area in an acceptable condition, and as in Zone 4, the area should be designated for sheep grazing. The pasture must be fenced off from the beach zone near the main path. Selected trees will be left to grow with a view to long-term renewal of the tree population. Oak and ash trees will be given priority, but a larger variety of species will be allowed in the beach zone.

Zone 6 (4.6 ha)

Current state

Zone 6 comprises the adjacent area to the north of the Borre Park. The area is owned by Horten municipality. The upper part of the area to the west has fairly dry soil, whereas the eastern part has moist soil. The area has been cleared of trees, with the exception of scattered deciduous trees. In the central part of the area some large pine trees have also been left standing.

Underneath these, an impenetrable young deciduous forest has grown to approximately 7-8 metres in height, and has been left without any clearing for 17 years. Here, all visual qualities are blocked by vegetation in summer as well as in winter. The name of the location, "Mellomenga" ("The Middle Meadow"), bears witness to the previous use of the area. A valuable, though small, marshy area is located to the east of Mound 4.

Goals of the maintenance

Improving the views of and from the park will enhance the experience value of the cultural monuments to a considerable. Upkeep of the area requires an opportunity to undertake clearing of trees and thinning as described in the plan for felling of trees. The area should emerge as a semi-open grazing landscape with scattered trees and tree clusters. The marshy area should be maintained and developed as an attraction in the landscape.

Long-term maintenance

The area must be cleared to allow the cultural monuments to appear in an explicit manner in the landscape. Careful clearing, including the preservation of large and healthy trees that potentially develop voluminous crowns, will allow light to penetrate down to the ground vegetation. Wood anemone and other herbaceous spring plants are likely to return in great numbers. However, clearing will also result in extensive growth of root saplings that must be kept in check by treating the stumps, manual clearing and/or grazing animals after the seeding of the spring herbs.

A thinning of the deciduous forest in the north will entail several advantages for the park:

- The edge vegetation will comprise a larger number of species.
- The forest floor will be better suited for traffic.
- Northerly winds will have less impact in the outer section, where the vegetation is vulnerable.
- Solitary stems or tree clusters in sheltered locations will be left to provide a habitat for birds that are dependent on dry and old trees.

Black alder and marsh forest towards the north-eastern corner of the park should be preserved to maintain a specific biological diversity resulting from the ability of the trees to fixate nitrogen in wet soil. The black alders should not be thinned more than to allow for dim light on the ground. The lesser butterfly orchid thrives on drier ground at the edge of this nutrient-rich area, and in the marshes there are large colonies of marsh marigolds.

After clearing, most of this area should be used as grazing land. Cattle or horses can be used to graze the upper, dry sections. Some trees will be left around the pond. The marshland should be maintained as a specific landscape element of considerable value for biological diversity.

Plains and beach terraces

Current state

The "Stevneplassen" and "Dyrskusletta" plains are located inside the Borre Park, and a beach used by swimmers is also found inside the protected area. The plains in the Borre Park are cut with a lawnmower. The area between the car park in the southern end and the promontory where the Borre beach ends in the north is widely used by organised groups and individual

visitors. In the southern end we find the service buildings, for which Horten municipality is responsible.

Goals of the maintenance

Maintenance of the forest should satisfy the use of the area by the public, but also be undertaken in the context of measures taken inside the boundaries of the park. Public use and arrangements inside and outside the boundaries of the park depend on each other. The “Dyrskusletta” plain has qualities that make it well suited for various forms of arrangements, and should be maintained with a view to making the park more widely used for various cultural and history-related events.

Long-term maintenance

The plains are historic sites in the landscape and must be kept open. These areas must continue to be mowed with a lawnmower.

The path network

Current state

The paths and trails are the nerve fibres of the landscape, and should serve educational and recreational purposes. They connect the protected park with the surrounding landscape. The coastal path is the main artery, along which the visitors move in a north-south direction. It is used throughout the year irrespective of weather conditions, and this entails heavy wear and tear on the path itself as well as on the adjacent terrain. It is desirable that the hikers to a larger extent stay *on* the paths to avoid wear and damage to the terrain.

Goals of the maintenance

The paths and trails must be maintained and kept passable for visitors, while their presence and maintenance activities should not challenge the goals for preservation of the park and its cultural monuments. The coastal path with the wetland comprising marsh and black alder must be preserved, but culverts leading the water under the path itself should be established in the spot where the path passes on the lower side of the marsh. In this location, as well as in other locations where pools of water accumulate in the spring and autumn, the path should be elevated with the aid of coarse-grained fill. The entire length of the path should subsequently be covered in relatively fine-grained gravel.

Other paths in the park and the security zone should be improved following a grading. The vegetation should be used actively to produce a visual impact on hikers and visitors. This could include enclosed spaces, associations to historical narratives, and the opening up of the broad lines of the landscape.

4.4.2. Landscape plan inside the protected area

In the national registration of valuable cultural landscapes undertaken in 1992, the entire area reaching from Fjugstad up to and including Borre Park between national road no. 19 and the Oslo Fjord was defined as an agricultural and historical area worthy of protection. The climate and the soil have served as a basis for wealthy agricultural communities and for a diversity of temperate-climate species growing along cultivated areas and on skerries, deciduous forests that include Northern Europe’s largest stock of ash trees, and monumental solitary oak trees. The Borre Park is a forested area that contributes to the totality of the landscape, in addition to

its value as a cultural monument. Modern construction and adaptation for recreational activities have only to a limited extent weakened the impression of being part of a historical landscape.

Legal provisions associated with the protection and management of the area

The concept of a 'nationally valuable cultural landscape' is not embedded in the legislative framework, this must be regarded as a recommendation for the revised municipal land use plan and for the environmental plans of the individual agricultural properties.

Fjugstad Nature Reserve, north of Åsgårdstrand, is protected pursuant to the 1970 Nature Conservation Act, and consists of deciduous forests with a tree population dominated by ash. According to municipal environmental surveys, local protection of red-listed species of birds and plants that have their biotopes in the park and its adjacent areas is desired.

Delimitation for a unified landscape

The protection of the area enacted on 5 November 1990 represents a natural delimitation of the cultural environment surrounding the Borre Park, and results in the formation of a unified geographical, historical and biological monument. During the preparation of the Overall Plan, the proposal to construct a long-house on the Borre beach was discussed. Borre Viking Society, Horten municipality and Midgard Historical Centre wished to erect a long-house inside the protected area. After a recommendation by the working group, this proposal was assessed by experts on the management of cultural monuments, whose conclusion was unambiguous: this would entail a conflict with the provisions for protection, and an application for an exemption from the provisions would be rejected. Midgard Historical Centre therefore proceeded to identify alternative solutions in the form of a location outside the boundaries of the protected area. It has proven feasible to erect a long-house to the north of the protected area (Vold, Land Number 18, Title Number 1,2,3). This area should be maintained and included in the general upkeep of the landscape. Borre Viking Society still wishes to realise a long-house inside the protected area, south of Borre Park, in cooperation with Horten municipality. This project will not be made subject to further deliberations within the framework of the Overall Plan, since construction activities inside a protected area are not part of the plans prepared by Vestfold county authority.

User interests

Biological protection of specified species will be implemented pursuant to the Nature Conservation Act. Consideration for red-listed species is included in the maintenance plans for Borre Park.

The agricultural landscape is a result of cultivation, forestry and grazing. Solitary trees, roads, edge zones and uncultivated patches are key elements in the landscape, and communicate the history of the region as well as shelters an ecosystem of animal and plant species that require sunlight. Furthermore, solitary tree contribute to the aesthetic character of the landscape. The cultural landscape represents a particular value and has a key function as a framework for the cultural monuments inside the park.

The cultural and natural landscape is used for recreational purposes in the form of physical exercise, health and outdoor pursuits. The entire stretch of landscape plays an important role in this experience, even though only some elements are used for physical recreation. The paths, the

marina, the beaches and the open plains are the most visited places. The area's attractiveness consists in the unity of its features.

In recent years, Horten municipality has spent an estimated NOK 100,000 per year on operation and maintenance of the areas associated with the Borre Park (leasing fee, mowing of lawns, renovation, maintenance of the paths, cleaning/monitoring of the service buildings, facilities for swimmers, etc.). No funds have been spent on maintenance of the forest for a number of years. To follow up the intentions of the Overall Plan, Horten municipality ought to increase its use of resources devoted to development and maintenance of the recreational area, as well as upkeep of the municipality's forests.

4.6. Costs

To preserve an open landscape and maintain it to a standard appropriate to a park, permanent solutions for managing the undergrowth, the trees and the cultural monuments are needed. The practice of allowing vegetation to impede the experience of the cultural monuments in the Borre Park should not be allowed to continue. Maintaining the park in a condition that the cultural monuments deserve and the public expects will require considerable resources. The operational costs devoted to maintenance of the park should be commensurate with the responsibility involved in managing a "cultural heritage park" of international standing in a dignified and fitting manner. Up to 2007, the annual operating cost of the park amounted to NOK 135,000. Experience has shown that this financial framework in no way is sufficient to maintain the park to an appropriate standard. Midgard Historical Centre and the status of the park as Vestfold county's Millennium Site have given temporary access to supplementary grants for development of the visitor experience qualities of the park. Over the period 1999-2005, a total of NOK 1.8 million of extraordinary funds was spent on Borre Park, in addition to its regular grant (NOK 135,000) each year. This improved the situation considerably, compared to what it was a few years earlier. As of 31 December 2005, the funding associated with the Millennium Site was withdrawn. In the autumn of 2007 regrowth in Borre Park had become noticeable, and comments from visitors underscored the need for further upkeep.

[This plan was drafted as a means to generate regular funding for the upkeep of the Borre Park. The plan was passed by the county council in 2007, thereby ensuring an increase regular funding. The current plan is to be revised in 2014-2015.]

EXTRACT FROM

PLAN OF MAINTENANCE OF OSEBERG ARCHAEOLOGICAL SITE AND HERITAGE TRAIL

Introduction

The Oseberg mound in Tønsberg municipality has, along with the Gokstad mound in Sandefjord municipality and the Borre mounds in Horten municipality, been put forward as one of the sites of the component part *Vestfold ship burials* in the transnational, serial World Heritage nomination of *Viking Age Sites in Northern Europe*. The current plan for the upkeep of the Oseberg mound and its connecting heritage trail forms a central part in fulfilling the goal of safeguarding the mound for future generations, set out in the *Vestfold Ship Burial. Management plan 2012-2016*. The plan has been drawn up by Tønsberg municipality and Vestfold County Authority.

Description of the area

The Oseberg mound is situated along a small stream in the valley of Slagen and is listed as ID 61845 in the national heritage register of Askeladden. The managed area consists of a heritage trail leading up to the archaeological site of the Oseberg mound. The mound and its surrounding park are marked out by a stone fence which connects the park to the heritage trail. The park consists of a combination of lawns and trees.



Oseberg mound with its park and trail behind the trees. Photo: Terje Gansum.

The heritage trail runs from the main parking area along the stream up to the Oseberg mound on the one side and Rv535 on the other. This trail serves as the prime entry point to the site: Along the trail there are information signs describing the history of the site, the deceased and their grave goods. The site can, however, be approached from the designated parking space for busses along road Fv460. When entering from Fv460 there is at present no information signs.

Management of the area

Tønsberg municipality (Department for city management) is responsible for the care and maintenance of the archaeological site and the heritage trail. Vestfold County Authority is responsible for developing the scientific dissemination at the site. At present the County Authority is collaborating with the municipality to prepare a new plan for upgrading the on-site interpretation and physical infrastructure.

Action plan for the upkeep and development of the area

In cooperation with Tønsberg municipality, Vestfold County Authority has drawn up an action plan for the future care and maintenance of the Oseberg archaeological site and heritage trail:

Parking and heritage trail

As will become event, the parking spot and the heritage must be seen in relation to each as they form one coherent entry point to the Oseberg mound.

- The current parking lot needs upgrading. During 2014 Norwegian Public Roads Administration is to be consulted with regards to improved signposting and adjustments of exits and park.
- The handrailing leading visitors from the parking lot to the heritage trail has to be altered so that the surface is smooth without key clamps. The transition between the handrailing and the heritage trail needs to be altered.
- The heritage trail needs a new layer of compact gravel. The new layer is to be 5 cm and cover the whole stretch of the heritage trail. Tactile markings along the left side of the heritage trail are to be evaluated; a possibility may be to create a tactile line using cobblestone.
- The thicket along the heritage trail needs to be cut during spring 2014.
- The stone fence is in need of better upkeep: The edges of the stone fence are to be tidied up twice a year and the surface of the stone fence must be treated with Roudup gel twice a year.
- The stones which form part of the information structure along the heritage trail will be kept as they are. The decoration on the stones is left to weather away. The current Plexiglas signs will be replaced. The new signs will have to be washed at regular intervals. At present it is the Vestfold County Authority that is responsible for cleaning and/or replacing the signs (see photo below).



Heritage trail with fence and signage. Photo: Cathrine S. Engebretsen.

The archaeological site of the Oseberg mound

The archaeological site of the Oseberg mound refers to the mound itself and the small park surrounding the mound.

- The lawn within the park surrounding the mound is cut once every two weeks during the summer. The work is estimated to take around half a day.
- As 7 firs are to be cut.
- 1 spruce is to be cut.
- The larches are not to be cut.

EXTRACT FROM

PLAN OF MAINTENANCE OF GOKSTAD ARCHAEOLOGICAL SITE

Introduction

The Gokstad mound in Sandefjord municipality has, along with the Oseberg mound in Tønsberg municipality and the Borre mounds in Horten municipality, been put forward as one of the sites of the component part of *Vestfold ship burials* in the transnational, serial World Heritage nomination of *Viking Age Sites in Northern Europe*. The plan follows up of the goals and actions set out in the *Vestfold Ship Burial. Management plan 2012-2016* and is to ensure that the Gokstad mound is safeguarded for future generations. The current plan for the upkeep of Gokstad was prepared in 2012-2013 by staff at Sandefjord municipality and Vestfold County Authority in collaboration with members of Sandary History Society, Anders Jahres' Humanitarian Foundation, Tourism Association, Sandefjord and Opland and consultation with local stakeholders.

Description

The Gokstad mound is located next to County Road 303, between Sandefjord and Stokke. The site's number in the national heritage register Akseladden its ID number is 51229.



The Gokstad mound, its park and the parking lot. Photo: Arve Kjersheim, The Directorate for Cultural Heritage.

The mound itself is surrounded by a small park which is marked out by a stone fence. Inside the park there are two more recent monuments where information about the excavation, the deceased and the finds. A path leads the visitors from the entry gate to the information

monuments. In addition to the park there is a parking lot between the enclosed park and the road.

Management of the area

Sandefjord municipality is responsible for the upkeep of the vegetation, i.e. cutting the grass, tree, cleaning the stone fence. Furthermore, the municipality is responsible for ensuring the site interpretation structures (i.e. the two monuments), the gate and the stone fence are monitored and maintained. Sandar History Society has contributed significantly in the maintenance of the stone fence. Vestfold County Authority is in charge of upgrading the on-site interpretation. Other societies have in the past, and may continue to, covered the costs of specific projects. At present the County Authority is collaborating with the municipality to prepare a new plan for upgrading the on-site interpretation and physical infrastructure.

Action plan for the upkeep and development of the area

Area of concern	Measure	Standard	Dead-line	Cost	Responsible
Vegetation	Two maple trees by the entrance removed to improve visibility from Gokstad etc. Stumps to be ground away.	Application made by the municipality and sent to the county council for adjudication.	2012	4000	Sandefjord municipality (SM)
	Trees examined by an arborist or equivalent.		Every 4 years		
	Two stumps in the former tree line to be ground away.		2013	3000	SM
	Grass cut every week in the period 1st May to 1st October and kept at a length of 40-80 mm. The grass around posts, walls, buildings and so on is to be of the same height as the grass in adjacent areas. Grass clippings to remain on the ground, with the exception of unsightly clumps. All edges to be kept even.	The area behind the wall is to be cut twice per season.	Annually		SM
	At damaged areas, the exit and areas of poor grass cover, soil shall be put down, and, if necessary, appropriate growing soil and seeds which complement the conditions.		Annually		SM
	Removal of thickets beyond the wall	Raspberry bushes sprayed with Roundup for three years.	2013 - 2016		SM
	Leaves removed in Spring and Autumn. Taken away or crushed.		Annually		SM
	Roads and spaces	The gravel path to be 2.5 m wide up to the monument. Gravel to be laid in the area around the monument.	Boarder stings. Using ground stone 4-8 mm.	Annually	
Tidy up the area shaped as a boat: clean up the boarder sting and gravel the area inner area of the 'boat'.			Annually		
The gravel path to the exhibition boards and ribs of the boat are to be maintained as 1 m wide in order to give adequate			Annually		

Fence and gates	access for wheelchairs.				
	The gate is to be stained.		Every 2 years	SM	
	The fence shall be regularly inspected. Peat to be laid on the top courses. Stones that have fallen off shall be put back in place within 14 days.		Annually		
Monument	The sculpture on top of the monument.	Investigate if it can have been stored somewhere or taken care of. If it cannot be found, it should be replaced with a new sculpture. Application for covering the costs to be made.	2013	15 000	Vestfold County Authority (VCA)
Cleaning	Clean the inscription on the monument	(Cathrine checks what is recommended)			
	Benches to be stained.				
	Rubbish to be collected.				
Measures outside the protected area	The transformer station and the high-voltage wire "disturb" the visual landscape picture. Planting outside the transformer station and the cabling can be alternatives.	The transformer station and the high-voltage wire are issues that VCA will know more about once the Agency for Railway Services determines a new railway route. Together with VCA, they are considering laying the high-voltage wire in an underground cable and relocating the transformer station.	Future		VCA
	Water tap	Disconnected 1st October, opened 1st May.	Annually		SM
Dissemination	Emptying of waste bins				
	New information signs		After 2013		VCA
Rules of behaviour	The creation of specific rules of behaviour is under consideration.	Case procedure under investigation. The rules should point towards desired behaviour, not be a "do not" sign. There are a number of events on the mound each year: graduations, school plays, gatherings of historical societies and other organisations etc. VCA suggests that we use an argumentation that behaviour that disturbs other user groups will not be allowed. The reason we feel that "inappropriate activity" in a burial place does not work so well is that; 1 There is no-one buried there now, 2 There are so many activities that happen on the mound that	After 2013		VCA & SM

Upgrade to universal design		it is tricky to define what is inappropriate.	
	All measures shall have universal design.	Inspection with the representative of the Council for the Disabled.	2012
		Continued work in a joint working group for the universal design for the <i>Vestfold ship burials</i> as a whole	2013

ANNEX IV DECLARATION OF INTENT

The Viking Age as World Heritage

Declaration of Intent

The Hyllestad quernstone quarries and the Vestfold ship burials are component parts of the transnational serial nomination *Viking Age Sites in Northern Europe* to UNESCO's World Heritage List

The transnational serial nomination *Viking Age Sites in Northern Europe* includes cultural heritage from the Viking Age linked to the land-, sea- and townscapes from the North Atlantic to the Baltic Sea. Altogether seven sites in five countries have been selected and nominated. These represent in an outstanding manner the same breadth, variation and development in the culture of the Vikings.

In the Viking Age – from the 8th to the 11th century – the peoples of Scandinavia developed a maritime culture that not only deeply affected the rest of Northern Europe but also influenced far distant peoples. The Viking Age was an epoch of major changes in the Scandinavian countries:

- Shift from tribal and clan structures via monarchy to nation building
- Change of religion from Norse customs and beliefs to Christianity
- Growth of towns and urbanisation in a society based on primary industry and the production of raw materials.

The development of advanced shipbuilding technology and highly developed maritime skills permitted the Vikings to make use of waterways – the ocean, lakes and rivers – for expansion, exploration, overseas settlements and trade over long distances. The swift, easily manoeuvrable Viking ships were technological innovations at that time.

The various component parts of the serial nomination include trading towns, harbours, fortifications, production sites, burial sites and places of assembly. In their entirety the sites in the serial nomination testify to social, economic and cultural development in the Viking Age. In addition to the Norwegian sites, the nomination includes Jelling and its mounds, runic stones and church as well as the fortifications at Trelleborg, Aggersborg and Fyrkat in Denmark, Þingvellir in Iceland, the Grobina archaeological complex in Latvia, and Danevirke and Hedeby in Germany (Schleswig-Holstein).

Hyllestad quernstone quarries demonstrate the development of mass production and bulk trade during the Viking Age. Quernstone production began in the 700s in order to satisfy a local need.

The Hyllestad quarries represent a unique production environment with regard to extent and authenticity, as well as links to the maritime culture that helps to unite the sites in the serial nomination.

The Vestfold ship burials – Gokstad, Oseberg and the Borre mounds – represent burial customs that are unparalleled in Viking Age culture. Common to the three locations are the large ships placed in the mound. Nowhere else in the world is the occurrence of ship burials so numerous, splendid and well-preserved. Three burial mounds with their wonderful ships and wealth of equipment that testify to a high degree of craft expertise are documented by archaeological excavations. The mounds at Borre are situated along the sailing route and underline in particular the association between technology, communication and landscape.

If the transnational serial nomination of *Viking Age Sites in Northern Europe* is inscribed on the World Heritage List, Norway guarantees that the Outstanding Universal Value of the Hyllestad quernstone quarries and the Vestfold ship burials will be preserved.

In connection with the preparation of the application for inscription on the World Heritage List, the municipalities of Horten, Sandefjord, Tønsberg and Hyllestad as well as Sogn og Fjordane and Vestfold county authorities and county governors together with the Directorate for Cultural Heritage, the Norwegian Environment Agency and the Ministry of Climate and Environment are in agreement on the following:

- The intention of the World Heritage nomination *Viking Age Sites in Northern Europe* is to protect, preserve, disseminate and transfer to future generations the Outstanding Universal Value the sites represent.
- The Norwegian component parts in the nomination shall help to strengthen local identity and contribute positively to experiencing the values of the cultural environments and to developing social and business activities in the municipalities.
- The sites shall be included in the active dissemination of World Heritage values, and the scientific values will form the basis of knowledge production through national and international research and professional network building.
- The Hyllestad quernstone quarries and the Vestfold ship burials shall be managed in accordance with national legislation and the intentions of the World Heritage Convention. A key objective is to achieve best practice in the management of cultural heritage and to represent Norway in a worthy manner in the transnational nomination and on the World Heritage List.
- A Norwegian World Heritage council will be set up for the Hyllestad quernstone quarries and the Vestfold ship burials. The council will ensure the joint

management of the World Heritage values and will promote the use of World Heritage Site status in the best interests of the local communities.

- Norway will participate actively in the international management of the serial nomination *Viking Age Sites in Northern Europe*.



