Dutch Water Defence Lines (The Netherlands) No 759bis

Official name as proposed by the State Party
Dutch Water Defence Lines

Location
Provinces of Noord-Holland, Utrecht, Gelderland, Noord-Brabant, and Zuid-Holland
The Netherlands

Brief description
The Dutch Water Defence Lines represents a defence system extending over 200 km along the edge of the administrative and economic heartland of Holland. It is comprised of the New Dutch Waterline and the Defence Line of Amsterdam. Built between 1815 and 1940, the system consists of a network of 96 forts, dikes, sluices, pumping stations, canals and inundation polders, working in concert to protect Holland by applying the principle of temporary flooding of the land. It has been developed thanks to the special knowledge of hydraulic engineering for defence purposes held and applied by the people of the Netherlands since the 16th century. Each of the polders along the line of fortifications has its own inundation facilities.

Category of property
In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this a nomination for an extension of a serial property of *sites*, *monuments*, and *groups of buildings*.

1 Basic data

Included in the Tentative List
17 August 2011

Background
This is a nomination of an extension of the World Heritage property Defence Line of Amsterdam (DLA), inscribed in 1996 on the basis of criteria (ii), (iv) and (v). In 2017, a minor boundary modification of the DLA proposing a few additions and reductions was submitted by the State Party but the World Heritage Committee did not approve those modifications. In 2015 an ICOMOS Advisory Mission visited the DLA and New Dutch Waterline (NDW) to provide advice on the feasibility of the extension.

Consultations and Technical Evaluation Mission
Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

An ICOMOS technical evaluation mission visited the property from 2 to 14 September 2019.

Additional information received by ICOMOS
A letter was sent to the State Party on 24 September 2019 requesting further information about boundary modifications and mechanisms of protection; rationale for the buffer zone; and methodology for the area analysis of highly dynamic areas.

An Interim Report was provided to the State Party in December 2019 summarising the issues identified by the ICOMOS World Heritage Panel. Further information was requested in the Interim Report including protection and management mechanisms for the areas proposed for exclusion; clarifications on the rationale for the buffer zone; and additional information and examples of the area analysis for highly dynamic areas.

Additional information was received from the State Party on 23 October 2019 and 25 February 2020, and it has been incorporated into the relevant sections of this evaluation report.

Date of ICOMOS approval of this report
12 March 2020

2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

Description and history
The nominated extension proposes to add the New Dutch Waterline (NDW) to the existing Defence Line of Amsterdam World Heritage Site (DLA), to become the Dutch Water Defence Lines World Heritage property (DWDL). This nomination also proposes a number of small extensions and reductions to the boundaries of the Defence Line of Amsterdam World Heritage property.

The proposed serial extension consists of one large component including the New Dutch Waterline, to be connected with the DLA and which encompasses two previously separated component parts of the existing World Heritage property (759-004 Advanced fort near Vijfhuizen and 759-008 Fort Kijkuit) and of three smaller component parts.

These will be examined further below.

The World Heritage property DLA (built between 1883 and 1920) is a continuous system of fortifications, canals, dikes, and inundation polders that surrounds the City of Amsterdam, creating a defensive circle of about 135 km in length, with 46 main fortifications. The NDW is a similar system that stretches 85 km in length from the Markermeer (north) to the Waal River (south) and

contains 45 main fortifications; moreover, the nominated extension includes the Crooked Rhine river (Kromme Rijn), the Tiel Inundation Canal (Inundatiekanaal) and Fort Pannerden, which are located up to 50 km from the main defence line which are part of the NDW.

The nominated extension and the World Heritage property illustrates a single military defence system, which was based on inundation fields, hydraulic installations and on a series of fortifications and military posts.

Inundating fields to knee height was a well-tested means of defence up until the Second World War for low-lying areas of the Netherlands, as it denied the passage of enemy troops either on foot or by boat. This system was based on the high level of knowledge of water management developed by the residents of these marshy lands. To turn marshes into farmland and grow crops, removing the water from the land and controlling its level in the canals and ditches was crucial. Polders, that is partitioned parcels of land separated from other parcels by canals, ditches and artificial watercourses, have been progressively created; pumping stations drained the water from the polders into the watercourses, which were connected either to a river or a larger canal. If water could be removed from the land, it could also be brought back to flood the polders: the Dutch water defence system was based on this principle.

The first waterline – the Old Dutch Waterline – originated at the time of the Eighty Years War (1568-1648) when the Spaniards built a dyke to cross inundated fields and which protected the centres of Amsterdam and The Hague for many years.

The construction of the New Dutch Waterline began in 1815 to protect the town of Utrecht; it was continuously modified and adapted to accommodate new defence requirements until 1940. The New Dutch Waterline consists of one system with nine inundation basins, extending over a distance of 85 km roughly in a north-south/south-west direction. Forts and other defensive structures as well as existing fortified towns protected vulnerable points such as elevated areas or access routes.

In the 1880s, the New Dutch Waterline was lengthened by the development of the Defence Line of Amsterdam, which was completed by 1920.

The Defence Line of Amsterdam World Heritage property was built as a defensive ring; for this reason, higher demands in water management were to be met, as the Line could not harness small differences in height of the landscape or the direction of the river water flows, therefore it resulted in a higher level of artificialisation of the landscape and a higher number of fortifications and other defensive structures, all built in concrete or reinforced concrete, as a response to the development of high-explosive shells.

Where existing dykes could not be used, new military dykes were constructed, such as in the Zuidwijkermeer Polder or in the Harlemmermeer Polder.

The NDW extends from the IJsselmeer (at the time called the Zuiderzee) at Muiden to the Biesbosch estuary at Werkendam. The extension consists of the enlargement of the major component part of the existing serial property by adding the defensive system of the NDW, and the addition of three smaller components: Fort Werk IV, the Tiel Inundation Canal and Fort Pannerden, near the German border.

The landscape through which the NDW runs determined the construction of this defence line. The defensive system was based on inundation fields and harnessed the potential offered by the natural and impoldered landscape features for defence purposes, in combination with the construction of ditches, canals, pumping stations and sluices and fortifications to protect vulnerable points (e.g. non inundatable sections).

There are three key features of the system of the NDW:

- the strategically deployed landscape
- the water management system
- the military fortifications

The strategically deployed landscape

The NDW was built along the boundary of the portion of dutch territory located above sea level and that which lies below sea level: the difference in level could be used for inundation purposes. Existing elements in the landscape, including dykes, quays, ditches, basins and polders were used within the defensive system. Fortifications erected to protect vulnerable points were complemented by strict building restrictions within Prohibited Circles, which are still recognisable today. The construction of infrastructure also had to respect defensive criteria for their location and provided with defensive structures. The use of the landscape features to create the defensive system had a double result: it made inundation possible and also provided camouflage to military installations. The strategically deployed landscape includes five types of landscape which are described in the nomination dossier.

In addition, the ‘urban landscape’ of the fortified cities and towns contributes to shaping the strategically deployed landscape, which is still recognisable today, thanks to the preservation of its key features, most of which had multiple functions.

The water management system

The area where the NDW was constructed is crossed by a number of large rivers. Structures and measures have been developed throughout the centuries to control water and to use it for agriculture and transport. The polder system with its dykes, ditches and sluices represented the basis of the NDW, which was augmented through ad–hoc structures and management mechanisms in order to rapidly achieve the inundations and direct the water where needed.

Military fortifications
Military fortifications were created in elevated locations and places where inundation was not possible or could be avoided by the enemy. Different types of defensive structures were built between 1815 and 1940, to respond to different military engineering, weapons and strategies. A number of existing fortified structures were adapted and modernised, including medieval fortresses and towns, which were already included in the Old Dutch Waterline. The seven phases of construction from 1815 to 1963 are described in the nomination dossier.

A standard type of fortification was adapted in terms of size and shape depending on its position and local situation. Among the many forts, the nomination dossier explicitly mentions Fort Spion and Fort Vuren, as examples of forward forts, and Fort Everdingen as a fort protecting multiple access points.

The three following components are also part of the proposed extension:

Fort Werk IV
This fort is the only surviving structure of a system of five forts known as the Naarden Offensive which was built to protect the fortified town of Naarden, when increased firepower made the existing fortifications vulnerable. Fort Werk IV exhibits a combination of a polygonal layout, a dry moat, brick crenelated walls and small crenelated bastions.

Tiel Inundation Canal
This canal, 3 km-long, connects the Waal and the Linge rivers in order to transport water from the first to the second, thus making it possible to use the water from the Linge to inundate polders in the Culemborgerwaard and Tielerwaard. Its construction was triggered by the outbreak of the Franco-Prussian War in 1870.

Fort Pannerden
This fort was built between 1869 and 1871 at the fork of the Waal and the Pannerden Canal, near the German border, in order to protect the supply of water which this canal could provide and which the inundation system of the NDW was dependent on.

Boundaries
The area of the 4 components forming the nominated extension totals 38,446.57 ha, the proposed reduction totals 1,242.99 ha, bringing the whole proposed significant boundary modification to 37,203.58 ha.

The State Party proposes a buffer zone for the World Heritage property and the proposed extension that extends 10 km from the external border of the property, covering essentially the outer side of the fortified system, that is to say on the side that was watched to prevent attacks from enemies. The buffer zone in the inner side of the property is limited to a 50 m wide strip of land. The buffer zone totals 191,722.63 ha.

The major addition proposed by the State Party consists of one large component comprising the New Dutch Waterline (37,723.01 ha), complemented by three small additional component parts and some minor additions and reductions.

The proposed boundaries include the entire fortification line made up of forts and dikes and the connected elements, namely:

- some fortified cities and other remains of ancient defensive systems;
- the forts with their ditches and immediate surroundings;
- smaller fortifications, shelters and other defensive works and devices (including trenches that were damaged or have disappeared but have been restored or reconstructed) that are scattered over a large area, often distant from the forts;
- the water control system aimed at inundating fields for defensive purposes, composed of canals, dikes, sluices, gates and connected works;
- the inundation fields, which are still well visible on open land used for pasture and agriculture;
- some lakes or permanently inundated lands that were part of the defensive system.

A few general parameters recur in the definition of the boundaries:

- maintaining open land in front of the forts and visibility towards the countryside that used to be inundated;
- maintaining portions of the open land that extends also on the inner side, that is to say between the fortification line and the cities that it was meant to protect (more an exception than a rule due to integrity issues);
- following the limits of natural and artificial features, e.g., dikes, roads, river banks;
- following town limits and excluding urban areas.

In fact, ICOMOS has observed that the proposed extension extends mainly on the outer side; on the inner side it is often reduced to a thin strip of land just behind the dikes that connect the forts.

ICOMOS notes that the rationale adopted with regards to the inclusion of the inundation fields is not always clear. As a general rule, the proposed extension covers the area from the fortifications to the limits of the inundation fields, but the actual situation is more complex. Inundation fields and military installations are located on the outer side. However, at specific locations, e.g., in the area of Utrecht (part of the proposed DWDL) a first line of fortifications is located within the inner side, along the city margins, therefore inundation land seems to have existed in the inner side as well. In some cases, open fields inside the inner zone are not included within the boundaries of the proposed extension, although it would be advisable that they were, as they can still

illustrate the relationship between the defence line and the inner landscape at the time of its construction. Additionally, the designed landscape and the hydraulic system that contributes to the Outstanding Universal Value (criterion v) of the proposed extension extend both internally and externally. It can be noted that near Utrecht the boundaries of the nominated extension are very tight around individual defence features of the waterline.

ICOMOS therefore considers that the boundaries of the nominated extension in the area near Utrecht should be revised and include all elements illustrating the defence system and their relationships.

Minor additions and reductions
Below further details are provided of the areas that are proposed for addition and removal from the existing World Heritage property.

The nomination dossier proposes the inclusion of three new areas that the State Party considers could contribute to and strengthen the Outstanding Universal Value of the Defence Line of Amsterdam.

Each of these is proposed in order to improve the visual integrity and coherence of the boundary by adding inundation lands. They are Starnmeerpolder (A1), Spaarnwoude (A2), and the inundation field in the vicinity of the Vóórstelling near Vijfhuizen (A3).

Two areas which were proposed for addition in 2017 through the minor boundary modification procedure are now included in the largest component proposed as an extension of the DLA World Heritage property.

At the same time, seven areas are proposed for removal from the existing World Heritage property. They are articulated into two groups: B1 and B2.

Group B1 includes five areas (referred to as B1.1 to B1.5) which are proposed for exclusion from the current DLA World Heritage property, because developments were included in plans or approved before 1996 and have been subsequently completed. According to the State Party, these areas should not have been included in the original nomination; additionally no important attributes of Outstanding Universal Value would be affected by these exclusions.

- B1.1 (-156 ha) - Broekpolder, municipality of Heemskerk, was an area of inundation fields for the DLA, which was designated as a residential area in 1993 and the housing estate of Broekpolder was developed from 1996 onwards.
- B1.2 (-97.5 ha) - Wijkermeerpolder west of the A9, municipality of Beverwijk, is an industrial port estate which was built here in the 1990s according to the 'De Pijp Industrial Plan' (approved in 1964).
- B1.3 (-202.7 ha) - Eastern side of Haarlem, municipality of Haarlemmerliede/Spaarnwoude and Haarlemmermeer contains two industrial estates (De Liede and Polanenpark) which were built between 1981 and 1997.
- B1.4 (-113.9 ha) - Floriade site Vijfhuizen, municipality of Haarlemmermeer, was designated as a future residential area in 1993, and the area has been completely built on since 2002.
- B1.5 (-27.4 ha) - Vrijschot Noord, Hoofddorp, municipality of Haarlemmermeer, was developed for a housing estate from 1994 onwards based on a zoning plan approved in 1993.

The State Party justifies the reductions in relation to the loss of integrity and authenticity and to the fact that no attribute supporting the Outstanding Universal Value would be included in the areas proposed for removal.

Group B2 covers the proposed exclusion of two areas, on the basis that irreversible developments have occurred on them since 1996, including those associated with the nearby Schiphol Airport. The State Party considers that no important attributes of Outstanding Universal Value will be affected by these exclusions.

- B2.1 (-22.8 ha) - Edam business estate is located partly inside the boundary of the World Heritage property, a result of the Plabeka Implementation Strategy adopted in 2011, after the inscription of the DLA, and escaped control due to the different alignment between the national protected landscape and the World Heritage Property.
- B2.2 (-622 ha) - Geniedijk and surrounding area, municipality of Haarlemmermeer, are located on the south-western side of the Defence Line of Amsterdam, south of Schiphol Airport. The Schiphol Airport zone has a national economic priority, therefore pressure exists to facilitate expansion of developments near the airport. The Schiphol Logistics Park is currently under construction; no high-rise or residential buildings will be allowed. Other developments exist or are being planned. A recreational park – Geniepark – is being developed: it includes the individual attributes of the DLA – fort, canal, dyke and associated line of trees. The proposed reduction in this zone will reduce the property essentially to the Geniepark.

ICOMOS notes that the proposed reductions, even though not extensive in their size compared to the whole of the inscribed property and of the nominated extension, are several and may set precedents for further similar proposals – within this property but also with reference to other World Heritage properties.

ICOMOS observes that the State Party does not inform about specific measures for the areas proposed for removal. Only some of the reductions, namely the ones on the outer side of the property, will be included in the buffer zone. On the other hand, the areas lying in the inner side will not be covered by any buffer zone, as on

the inner side only a 50m buffer zone is proposed for the DWDL.

The State Party has also explained that in most cases, the development was already approved at the time of inscription, even if not implemented yet in all cases. It has informed that the legal framework has been modified (See Protection and Management sections) and today this prevents the World Heritage property and the nominated extension from being vulnerable to development proposals.

ICOMOS regrets that such developments could not be stopped and understands that the State Party has recently acted upon its legislation in order to prevent further threats to the property. ICOMOS however observes that no specific mechanisms have been envisaged for the proposed reductions to avoid their further depletion and, where possible, their partial recovery, e.g. through ad-hoc design measures.

ICOMOS also observes that some portions proposed for removal show higher sensitivity than other ones, e.g. in the vicinity of Schiphol Airport, because the proposed reduction may reduce significantly the width of the Defence Line of Amsterdam.

The dyke near Schiphol Airport presents overall a good state of conservation, although infrastructure developments and high-rise buildings on the inner side of the dyke have negative impacts. The inundation field on the outer side is still visible but industrial buildings are scattered in the open land, which is designated for further developments: the landscape is becoming here definitely urban and only a very accurate disposition of the buildings, their architecture and the landscaping of green areas alongside the dyke may preserve the continuity of appearance of the defence line.

Additionally, in this case, some developments have not taken place yet, therefore there might be some opportunity to reduce their impacts, on both sides of the DLA.

ICOMOS therefore considers that six out of seven proposed reductions – B1.1 to B1.5 and B2.1 – might be acceptable, only on the condition that they are all included in the buffer zone and are equipped with specific protection mechanisms so as to avoid further depletion of their residual heritage significance, and to revert, at least partially, the negative effects of the already realised developments, in the medium-/long-term, e.g. in case of redevelopment.

On the other hand, ICOMOS considers that the reduction of B2.2 cannot be accepted, because the integrity of the DLA would be undermined, as its width will be too much reduced and for a too long stretch. ICOMOS also considers that the development along the outer side of the defence line at Geniedijk should be modified in order to keep it at a further distance than the one that is presently proposed, to avoid further negative impacts on this side of the DLA. On the inner side, within the Schiphol Airport zone, consideration should be given to devising possible measures for the mitigation of negative effects of development and/or, at least, partial recovery of the integrity of the area, in the medium-, to long-term.

Buffer zone

The buffer zone extends for 10km on the outer side of the DWDL, whilst on the inner side it is limited to a 50m strip of land.

ICOMOS observes that a buffer zone based on a simple distance rationale appears too mechanical and does not correspond to any element supporting the defence line. Additionally, its boundaries do not coincide with any physical or administrative delimitation, or property limits (e.g. cadastral parcels). Furthermore, it is not clear what specific protection measures are established for this large buffer zone.

ICOMOS further observes that, whilst such a large buffer zone is proposed for the outer side of the defence lines, a 50 m wide strip of land is proposed as a buffer zone for the inner side. However, pressure and demand for new developments are generally much higher on the inner side.

ICOMOS requested additional information on the matter from the State Party, who explained that in the buffer zone the legal and planning framework, which puts at its centre the preservation of heritage resources, applies as a protection mechanism. The State Party also explained that the difference in extension between the outer, generous buffer zone, and the inner, tight buffer, depends on the historic function of the DWDL: it was not forbidden to build within the inner side of the water line, whilst on the outer side, the land needed to remain unobstructed for defence purposes. This approach has guided the delineation of the buffer zone.

ICOMOS considers that the legal and planning frameworks are important general instruments; however, what is necessary in a buffer zone are specific regulatory mechanisms, deriving from the general law, that guarantee the necessary added layer of protection and ensure that no further potentially already approved developments threaten the DLA and the proposed extension. These specific mechanisms are not adequately explained.

ICOMOS further considers that applying the same rationale for developing the buffer zone as the way in which the inner and outer territory was used does not appear correct. The DWDL are no longer a defence system, as they have lost this function and have become a heritage system. Therefore the buffer zone required today cannot be based only on the rationale of construction and use of the DWDL but should consider the specific role it has to play in each and every circumstance, to provide an added layer of protection at a large-scale heritage infrastructure. Additionally, the

nomination dossier explains that in the inner side of the waterline grazing and farming land was also included, to supply food in time of war.

ICOMOS considers that the buffer zone on the inner side must be expanded, on the basis of ad-hoc considerations related to the specific sections of the DWDL to be protected, their local vulnerabilities and taking into account historical elements (e.g. the Prohibited Circles, lines of sight, etc.).

On the outer side, the buffer zone also requires further specifications, particularly in what concerns the delineation of the boundaries, and the articulation in sub-zones, equipped with the necessary planning regulations to ensure effective protection. In particular, the boundaries should be made to coincide with physical elements (e.g. geographical or landscape features, infrastructures, etc.) or administrative and property delimitations (e.g. cadastral parcels, planning zones, other designated zones, etc.) in order to guarantee certainty and effectiveness of application of protection measures.

ICOMOS concludes that a thoroughly revised buffer zone is needed. This should include all Prohibited Circles which are not included in the nominated extension (the maximum radius - 1km), the entirety of the inundation fields all around the fortresses, regardless of their position and distance from the fortresses, as well as those rural areas that could contribute to maintaining the visual and historical relationship between the fortified elements and the surrounding landscape, which is considered an attribute of the Outstanding Universal Value.

Finally, ICOMOS considers that the buffer zone should include the area of Maarschalkerweerd, which is a residual open land facing the Lunettes and has retained partial agricultural use, for it is one of the few places where a substantial visual continuity and relationship between the inner and outer rings of protection of Utrecht is still maintained.

State of conservation

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is overall good, although a number of areas are vulnerable due to high development pressures.

On the other hand, in the inscribed property some parts have lost their heritage features to the extent that the State Party has found it necessary to propose boundary reductions.

Active conservation measures and maintenance are being put in place particularly for the fortified structures and for the water management system. On the other hand, the landscape needs similar attention through careful planning and design.

Factors affecting the property

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main current factor affecting the property is high development pressure.

However, climate change also represents an important factor affecting the low-lying area where the Dutch Water Defence Lines are located. Coping with its effects will also cause changes in the living environment and the adaptation of the water management system to new challenges.

The inscribed property and the nominated extension are located in a densely populated and very dynamic area. Since the 1960s, Randstad Holland, the string of cities which stretches from the IJsselmeer to the mouth of the Rhine in the central Netherlands, has been described as one of the major metropolises of the world. In many places alongside the DWDL, expectation and demand for new developments are increasing.

Pressure for reusing this area for recreational purposes has been positively directed to restoring the forts and maintaining the adjacent green areas; in this area good examples exist and a common practice is somehow established. Pressure for new developments and infrastructure near the forts and in the inundation fields tends to overwhelm protection measures – as it actually already has in several cases. If a piece of open land is built upon, the damage is complete and practically irreversible.

The property is very large, dotted with many forts, and the inundation area is vast: it might appear that one case of disappearance of inundation fields or the impossibility to perceive any longer the relationship between one of the forts and its pertinent territory might only slightly affect the property as a whole. But if these cases multiply, and the pressures are significant, the integrity of the World Heritage property and proposed extension is at risk.

Aside from the proposed corrections of the World Heritage property border, the State Party informs about projects that are located inside the World Heritage property itself and that could threaten Outstanding Universal Value. The ICOMOS technical evaluation mission visited some of the sites where projects are being planned. These cases are all delicate and need to be dealt with carefully and separately from the overall evaluation process of the proposed extension. However, preliminary considerations may be offered for some of them.

<u>Motorway junction A8-A9</u>

The planned junction will connect the A8 and A9 to complete the new ring road all around the city of Amsterdam. To connect the A8 and A9, it is necessary to cross the property for its entire width; the junction will occupy a large space inside the property. The area is

rural but the presence of the A9 has visual and noise impacts on the property and namely on the Veldhuis Fort.

Opinions on this proposal are divided and some citizens and associations are opposing it.

An ICOMOS advisory mission visited the site in October 2017 and focused on three alternatives; ICOMOS gave its final advice in December 2017, calling for an investigation of new alternatives and indicating that restoration of the Defence Line landscape was necessary even without the A8-A9 junction. At the moment this report was finalised, the favourite option seemed to be to build the junction inside an area that nowadays is a golf course and redesign it in order to reduce impacts and compensate for the presence of the motorway with better arrangements.

ICOMOS recommends that any updated proposal for the A8-A9 junction be transmitted to the World Heritage Centre and ICOMOS for consideration.

Housing development near Woudrichem

Very close to the fortified town of Woudrichem lies an industrial area to be decommissioned and replaced by a residential neighbourhood (partially dedicated to social housing). In theory, the transformation might offer the opportunity to improve the quality of the environment. Unfortunately, the project plans a large octagonal building facing the walls of the old town and a massive one on the opposite side of the area: the resulting impact could be even worse than the present one.

ICOMOS recommends that this design solution be reconsidered expeditiously.

High dynamic area around the city of Utrecht

Utrecht was protected by a double ring of forts. Nowadays there is strong pressure for new spatial developments that will affect the property directly and indirectly. In general, the area of Utrecht deserves special attention: further reduction of the open land and isolation of the forts in this area are a major threat to the integrity of the NDW as a whole and to the credibility of the extension.

Several projects are under development or study in the Utrecht area and here the nominated extension appears already fragmented. Two areas are particularly exposed.

Science Park and Laagraven area

The Utrecht Science Park is located on the fringes of the city and borders the property. It is the largest science park in the Netherlands and hosts a very important medical centre. There is a project to build an extension to an existing hospital.

Not far from here, the open land of Laagraven is subject to strong pressures. This site is partially surrounded by urban areas and flanked by motorways on two sides; for this reason, it was chosen as a sample area for detailed analysis, according to the indications of the Management Plan. ICOMOS considers that the analysis has demonstrated the sensitivity of the area, its importance for explaining the defensive function of the waterlines and concludes that its designation as green open land is to be confirmed to enhance the relationship between the city and the countryside.

Business park south of Houten

South of Houten, along the canal connecting the Port of Amsterdam with the Lek, the ICOMOS technical evaluation mission visited some examples of compromises between heritage protection and new development (e.g. near Beatrix lock).

These cases cannot be models to be applied for future developments. When new projects potentially affect attributes of the Outstanding Universal Value, unique or highly representative elements, the integrity of heritage cannot be a matter of negotiation.

Nevertheless, they are examples of conflict management and related mediations between opposite interests that can be useful in the revised definition of the buffer zone.

In conclusion, existing pressures highlight the need for the enlargement and adaptation of the proposed buffer zone in the inner side of the World Heritage property and the proposed extension.

ICOMOS finally recommends that for the highly dynamic area of Utrecht it would be more efficient to adopt a propositional strategy and a comprehensive detailed master plan where the different needs and requests can be integrated and their capacity to match the aim of heritage protection be assessed, through a strategic Heritage Impact Assessment approach, instead of assessing each project on an individual basis.

The Area Analysis report for Laagraven, transmitted with the additional information in Feburary 2020, makes it evident that local planning should protect this sensitive site from urban pressure and Laagraven itself should be the object of a territorial project aimed at requalifying this open land, enhance the quality of its landscape, and reinforce the mutual visibility of the forts.

3 Proposed justification for inscription

Proposed justification
The nominated extension is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The New Dutch Waterline exceptionally reflects the way in which geographical, geomorphological and hydrological characteristics as well as artificial features of the landscape were masterfully harnessed for defence purposes;
- The New Dutch Waterline illustrates multiple generations of exceptional water management facilities and structures and of military fortifications, as well as their adaptation to increased destructive weapon power;
- The New Dutch Waterline (1815-1940) predates the Defence Line of Amsterdam World Heritage property, which was constructed later (1883-1920) as a second inner redoubt of the NDW, the two waterlines forming one single defence system, based on the same principle of field inundation;
- The addition of the New Dutch Waterline to the World Heritage Property Defence Line of Amsterdam supplements and enhances its Outstanding Universal Value as together the Dutch Water Defence Lines completely illustrate the development and perfecting of the national defence system of Holland.

Comparative analysis
The comparison has been preceded by a preliminary exercise which has examined properties, inscribed or not on the World Heritage List, and exhibiting similar sets of values and characteristics – strategically deployed landscape, water management system, and military fortifications – and has identified properties relevant for the purpose of the comparative analysis. This preliminary exercise has looked at the national, regional and global contexts. Finally, the nominated extension has been compared with 11 properties, four from the Netherlands, six from the European context and one from Canada.

The comparative analysis has concluded that the waterlines examined within the national context can be considered as forerunners for the NDW and the DLA, which, however, together express the apex of the defence system based on inundation.

At the European level, no other property or site is comparable with the DWDL, the only ones exhibiting some similarities are the Defence Line of Antwerp and the fortifications of Copenhagen, although they differ in terms of hydraulic engineering, landscape features and scope.

At the global level, only the Rideau Canal World Heritage property (Canada, 2007, (i) and (iv)) has been found relevant for the comparison; however, its water management structures were not used for defence, as the Canal is not a defence system based on inundation.

ICOMOS concurs with the findings of the comparative analysis presented in the nomination dossier.

ICOMOS considers that the comparative analysis justifies consideration of this extension to the DLA for approval in the World Heritage List to become the Dutch Water Defence Lines.

Criteria under which inscription is proposed
The Defence Line of Amsterdam was inscribed on the World Heritage List on the basis of cultural criteria (ii), (iv) and (v). The proposed extension therefore is nominated under the same criteria.

Criterion (ii): *exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;*

This criterion is justified by the State Party on the grounds that the already-inscribed property and the nominated extension illustrate in its most advanced and extensive form the technology and arrangements that the Dutch developed to control inundation. Although inundation for defence had been used since the Middle Ages in the low-lying parts of north-western Europe, the Dutch brought the system to an unpredencented level of advancement and scale. The DWDL were not the last to be built: the knowledge developed here was applied and further elaborated to build other defence lines in Europe in the 1930-40s, such as the French Maginot Line, the German Pomeranian Line and, later, in the 1950s, the Ijssel Line in the Netherlands.

ICOMOS considers that this criterion is justified by the nominated extension and that the NDW supplements and reinforces the justification of this criterion of the World Heritage property.

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

This criterion is justified by the State Party on the grounds that the NDW illustrates an ingenious system of defence which has achieved the integrated use of landscape features, careful water management and control for inundation fields, and military fortifications to protect the vulnerable points. In particular the nominated extension offered, due to the very nature of the land morphology, larger opportunities to harness the landscape characteristics. Due to the presence of several rivers, which were points of access for the

enemy and needed therefore to be defended, many forts were built for this purpose.

The NDW also illustrates the development of military architecture in the 19th and early 20th centuries as well as the transition from brick to concrete construction. The rich collection of forts comprised within the NDW exceptionally illustrates the continuous adaptation of military engineering to new defensive challenges and complements the DLA with further attributes, thereby reinforcing the justification of this criterion.

ICOMOS considers that the identified attributes included within the nominated extension are numerous and many are exceptional in their own right and therefore contribute to reinforcing the justification of this criterion.

Criterion (v): *be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;*

This criterion is justified by the State Party on the grounds that the nominated extension represents an ingenious use of the topography and hydrology of the landscape for defence purposes. The knowledge developed over several centuries to manage water for farming purposes was perfected and put to the service of the defence of the country, with the aid of pumping stations, watercourses, sluices, ring canals and dykes, to ensure rapid and precise control of the water flow. Several structures that were built for civil use were integrated into the military defence system. The nominated extension will enhance and complement the Outstanding Universal Value of the DLA as a model of the military system that has ingeniously perfected the use of landscape features and water management to achieve a defensive system of large territorial scale.

ICOMOS concurs with the findings of the nomination dossier that the nominated extension will reinforce and amplify the justification of this criterion of the World Heritage property.

ICOMOS considers that the nominated extension meets criteria (ii), (iv) and (v) and will enhance the justification of the Defence Line of Amsterdam World Heritage Property to become the Dutch Water Defence Lines.

Integrity and authenticity

The nomination dossier explains the modality of the assessment of the integrity and authenticity of the nominated extension. The year 1940 was adopted as the point of reference since from that date no new structure was added to the system. The following main categories of attributes of the nominated extension were identified: the Strategically Deployed Landscape, the Water Management System and the Military Fortifications. The identified attributes have been grouped in categories and in some cases further subdivided. For the majority of the features an individual assessment was carried out. For complex features, an assessment of the presence of all elements was made. The main defence line was not assessed as a single object but was articulated according to the generations of defence lines. Smaller features could not be assessed individually due to their high number, and their integrity and authenticity was assessed in conjunction with the cluster they belong to.

Integrity

According to the State Party, the extension of the Defence Line of Amsterdam through the addition of and unification with the New Dutch Waterline forms a coherent and complete system but each of them had a specific function to play. The extension would add landscape and historical coherence to the existing World Heritage property. The boundary of the extension includes all attributes necessary to reflect the proposed Outstanding Universal Value, including the three individual component parts.

The nominated extension includes a large number of identified physical attributes. All forts are included within the boundary of the nominated extension and none has been destroyed. The identified attributes of all categories are said to be in good condition, although the area of the defence line near Utrecht has lost the inundation basins, which were very narrow in this area due to its elevation.

ICOMOS concurs with the State Party that the proposal of merging the DLA and the NDW into one single property will increase the level of integrity because the proposed new property DWDL would include almost the whole fortified water system conceived for the defence of the core urban area of the Netherlands.

The water management system (a complex network of canals, dikes, gates, sluices) is still in use and its maintenance is assured as far as it is necessary for the safety of large cultivated and inhabited areas.

ICOMOS however notes that the strategically deployed landscape is still well visible but its extension is notably reduced and its degree of integrity is uneven. Especially (but not only) on the inner side of the defence lines, urban growth has often overwhelmed rurality and the visual relationships between the forts and the environment have been undermined. On the outer side (the side watched over by the forts), some new developments have occurred and scattered buildings and groups of trees have modified the aspect of the landscape and the visibility of the “Prohibited Circles”.

Negative impacts from new developments and large infrastructures can be found in the western portion of the DLA World Heritage Property, in the central portion of the NDW, and at the junction between the DLA and NDW, that is to say, next to the cities of Amsterdam, Haarlem and Utrecht, where the defence line passes through dense urban areas. There, fortifications, related ditches, canals and dikes have been preserved but the landscape

has changed significantly and several inundation fields have been built upon or are no longer visible. Nowadays these portions of the property are exposed to strong pressure for further transformation.

ICOMOS considers that the extent of the proposed extension of the property, the abundance of its elements, the strong presence of the rural landscape where it still exists, the effectiveness of the current actions of care and maintenance, can secure the integrity of the property. However, in the area near Utrecht the boundaries of the nominated extension need to be revised and widened, whereas currently they are drawn tightly around individual defence features. Pressure for new developments has already produced adverse effects and must be taken accurately under control.

The State Party proposes to add three areas to the Defence Line of Amsterdam: two – A1 and A3 – are still-preserved inundation fields and one – A2 – is a wooded recreational area which would reinforce the continuity of the DLA and contribute to strengthening the integrity of the already inscribed property.

ICOMOS concurs with the proposal of the addition of these three areas.

The State Party also proposes to exclude from the inscribed property seven areas where new developments have occurred after the inscription or were already envisaged in plans adopted before the inscription of the World Heritage property.

As explained in the boundaries section of this report, ICOMOS considers that only six out of seven proposed reductions might be approvable, under the conditions that all reductions are included within the buffer zone and ad-hoc measures will be put in place to guarantee that in the future some element of the past could be restored through careful design and landscaping, in particular in case of redevelopment.

On the other hand, B2.2 (Geniedijk and surrounding area) should not be accepted because this reduction would impair the integrity of the DLA.

ICOMOS recommends that the State Party give priority to the preservation of the attributes of the Outstanding Universal Value in the planning process and in the procedures of project approval, whilst also ensuring strict monitoring.

To guarantee that the integrity of the proposed extension and of the extended property as a whole is adequately sustained and, where necessary, enhanced, ICOMOS considers it crucial that the buffer zone be throroughly revised as explained in the boundary section of this report.

Authenticity

ICOMOS considers that the physical attributes of the proposed extension reflect credibly the proposed justification for inscription through their form and design, their materials, their reciprocal interrelations and relationships with the landscape setting. Although the military use and defence function have ceased, the primary agricultural use of the landscape has been retained alongside the introduction of recreational use.

ICOMOS considers that several sources exist that can demonstrate the authenticity of the property, including bibliographical and archival sources. The physical attributes demonstrate and support the justification for inscription, reflecting the values and the historic development of the property. Restorations and repurposing of the forts have contributed to maintaining near the main military structures the spirit of the military past of the defence line territory. However, the modifications to the landscape and the developments have, in some zones, reduced conditions of authenticity.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity of the proposed extension and minor additions to the existing World Heritage property will be met when the boundaries near Utrecht are revised and made more generous on the inner side. In certain areas the nominated extension and the World Heritage property are subject to considerable development pressure that requires an expanded buffer zone on the inner side and a more precise delineation of the boundaries on the inner and outer sides, with careful monitoring and proactive management measures.

Evaluation of the proposed justification for inscription

ICOMOS considers that the proposed justification for inscription of the nominated extension is coherent with the justification and the Outstanding Universal Value of the Defence Line of Amsterdam.

The nominated extension contributes to make evident that the purpose for creating the DLA and the NDW and the principles of their construction were the same: when in use, the Dutch Water Defence Lines worked as an integrated system.

The proposed extension would overall contribute to enhancing the integrity and authenticity of the DLA; however, it will meet the conditions of integrity once the boundaries are revised and enlarged in the area near Utrecht. The inscribed property and the proposed extension suffer from high development pressures. Therefore it is essential that strict monitoring is exercised of the high dynamic areas and that the proposed buffer zone be reconsidered and adapted to cover also in an adequate manner the inner side of the DWDL. Its boundaries should be more precisely determined and the area provided with regulatory mechanisms, possibly based on specific zonings, in order to guarantee the necessary added layer of protection.

ICOMOS regrets that developments have occurred within the boundary of the inscribed property and that the State Party has felt obliged to propose some reductions. ICOMOS considers that only six out of seven proposals might be acceptable but only on the condition that they are all included in the buffer zone, which is not the case at the moment, and that ad-hoc measures for avoiding their further depletion and for their possible partial recovery in the medium- or long-term are set up.

With regard to the B2.2 area, in this section the width of the DLA is already very narrow and any further reduction will put at risk the integrity of the property and therefore this reduction should not be approved. The development planned on the outer side of the waterline should be kept further away from the waterline. On the inner side, at least partial recovery of areas developed and under development near the waterline, in case these might be in the future be less or no longer used, should be planned.

Attributes

The nomination dossier describes carefully and extensively the attributes supporting the proposed Outstanding Universal Value, therefore it should be regarded as the major source of information on the attributes of the property.

The attributes of the inscribed property and of the nominated extension forming the Dutch Water Defence Lines are organised in three large categories:

- the Strategically Deployed Landscape
- the Water Management System
- the Military Fortifications

These are further articulated into attributes.

The Strategically Deployed Landscape includes the main defence line, inundation basins, basin barrages, accesses, prohibited circles and wooden houses.

The Water Management System includes inundation quays, rivers, inundation and supply canals, discharge and seepage basins, main inlets, culverts, locks, log sheds, pumping stations.

The Military Fortifications include the fortified towns, the forts and batteries, the positions and dispersed structures, groups of shelters, casemates, and other military objects.

Further attributes which emerged during the study on the integrity of the nominated extension include the following:

- Linearity of the main defence line
- Landscape openness of the inundation fields
- Prohibited Circles of military fortifications
- Successive historical phases of construction and adaptation of the fortifications and military structures.

ICOMOS considers that the nominated extension is coherent with the Outstanding Universal Value of the Defence Line of Amsterdam inscribed property and, with its attributes, will complement and augment the Outstanding Universal Value of the DLA.

4 Conservation measures and monitoring

Conservation measures

A complex set of policy, planning and direct conservation measures exist to ensure the conservation of the attributes of the nominated extension.

With regards to the strategically deployed landscape, the inundation basins are, in the main, still used as agricultural land and are therefore covered by the rural zoning plan which does not permit construction and change of use. This is complemented by the Common Agricultural Policy, which sets conditions for the allocation of subsidies in relation to the use of pasture, and by international or national nature conservation designations.

Provinces and municipalities have implemented the relevant national legislation in the matter through their by-laws and plans, and the management of nature reserves is carried out by professional organisations.

Most of the attributes related to the water management system are still in use for civil functions and are maintained and managed by water authorities and municipalities.

A Subsidy Scheme for the Preservation of Monuments exists and owners can apply for a 50% maximum subsidy on the basis of a 6-year management plan.

A large amount of financial resources has been allocated in the last 15 years and further funds are secured for the immediate future.

ICOMOS notes that many initiatives for conservation and reuse have already taken place, and, having proved successful, they continue: cases, situations and actors differ from one case to another as well as the outcomes. The major challenges for conservation derive from two features of the forts: their structure and their interior apportionment. The old concrete structures do not correspond to present requirements for energy saving and ambient quality of the interiors; and their internal spaces designed for military purposes are not easily adapted to new uses.

The restored forts present a great variety of uses that have stimulated different arrangements and technical solutions; however, many of them are interesting examples of the encounter between old military and contemporary civil architecture. As a general positive effect, restorations have allowed conservation of the forts, have improved their condition and made them available to a large public. Experience in this field has been

accumulated and the State Party is encouraged to continue.

ICOMOS recommends continuing with the policy for gradual restoration and conversion to new uses of the forts, by easing and supporting the initiatives of local administrations, private entrepreneurs, and citizens. The nominated extension already offers positive examples that can be regarded as good practice and can become the basis for guidelines for future management. The active protection that has been applied to the water management system and the military fortifications should be extended to the strategically deployed landscape, particularly to the rural environment and where the visual and functional relationships with the water management system and the fortifications can be more clearly understood.

Monitoring

The nomination dossier informs that the development of a monitoring system was begun in 2017 and will continue in 2020. An online database is being created to gather and organise all relevant information for the management and monitoring of the property.

The key aims of the monitoring system are the timely identification of developments with possible impacts on the Outstanding Universal Value of the property, the continuing appraisal of the management, maintenance and repurposing of the attributes of the property, the monitoring of the progress in managing the property, and organising and issuing the periodic reporting.

Relevant factors that might impact on the property have been selected among the 14 indicated in the periodic reporting exercise. A database exists for the registration of incidents related to protected heritage – the Database of Cultural Heritage Incidents – which is managed by the Cultural Heritage Agency; in addition, a Heritage Monitor collects systematic data on 171 indicators.

ICOMOS observes that the monitoring system being developed is based on already existing and well-geared monitoring instruments, which suggests that, when completed, this will be an effective monitoring tool. ICOMOS therefore recommends that it is expeditiously completed and applied.

ICOMOS considers that a range of effective conservation measures are in place for the nominated extension, particularly for the water management system and the military fortifications, and they have yielded positive results. More active conservation measures should be extended also to the landscape attributes to guarantee their preservation.
The monitoring system for the extended property is under elaboration and seems to be based on existing monitoring practices and instruments. ICOMOS recommends that it is finalised and implemented.

5 Protection and management

Documentation

The nomination dossier contains the results of very detailed studies developed on each element of the Dutch Water Defence Lines (DWDL). It also informs that several studies have been carried out in recent years on the defence lines and that historic documentation exists on the property.

Legal protection

The legal framework for heritage and landscape protection and spatial planning is under reform in the Netherlands. From 2021 a revised set of laws, by-laws, strategies and regulations will apply.

Currently, World Heritage properties' attributes and Outstanding Universal Value are given consideration at all national, provincial and local levels through the provisions of the Spatial Planning (General Rules) Decree, Dutch acronym *Barro*, issued in 2011, which identifies core qualities of the properties inscribed on the World Heritage List or included in the Tentative List. These qualities must be maintained or enhanced in plans and spatial developments.

The *Barro* provisions will be incorporated into the new Environment and Planning Act (2016), which stipulates that regulations for the preservation of the Outstanding Universal Value of World Heritage properties and the implementation of the World Heritage Convention must be developed.

The Spatial Planning Decree, Dutch acronym *Bro*, stipulates that municipalities must take into account cultural history when elaborating spatial plans.

All military and many water management structures of the proposed extension have been designated national monuments as per the Heritage Act (2016). On the other hand, in the DLA, heritage designations were issued on the basis of the Monuments and Historic Buildings Act (1988); additionally a number of attributes are covered by provincial designations, based on the Ordnance of the Province of Noord-Holland, which is considered equivalent to national designation.

The fortified towns of the NDW are designated urban conservation areas and no development that can impair their heritage character is permitted. According to the Monuments and Historic Buildings Act and the Heritage Act, municipalities must elaborate protection zoning plans for conservation areas, thereby complementing the protection afforded to individual heritage structures.

In addition to legislation, national, provincial and municipal policy documents provide for priorities and objectives with regards to cultural heritage.

The Environment and Planning Act stipulates that spatial developments may not jeopardize the Outstanding Universal Value of a World Heritage property, regardless of its location. Furthermore, a Spatial Quality Advisory Team has been established: it issues opinions and recommendations to ensure that the Outstanding Universal Value, integrity and authenticity of the property are not endangered by development proposals.

Around the inscribed property and the nominated extension various protection regimes apply that have protective effects on the setting of the Dutch Water Defence Lines (DWDL): these include Natura 2000 areas, National Nature Network, provincial urbanisation buffer zones in Noord–Holland, Schiphol Airport Zoning Decree, and valuable landscape designations.

These afford protection to the setting of the DWDL and form the basis for the establishment of the buffer zone on the outer side of the whole property.

The municipal zoning plan has legal binding force and is the key instrument for implementing protective measures.

Provinces are responsible for describing the 'core qualities' of existing or proposed World Heritage properties and for developing rules for their preservation. These rules are included in provincial by-laws and inserted in municipal zoning plans. In case provinces do not comply with the above provision, the national government has the right to prescribe the rules that must be included in provincial by-laws. Similarly, if municipalities fail to comply with provincial by-laws, a province may give 'reactive instructions'.

The government and the provinces have the right to prepare government-imposed zoning plan amendments, as long as a national or provincial interest is at stake (such as in the case of World Heritage or heritage preservation). These amendments have the same legal value as municipal zoning plans.

The rural zoning plan is the central instrument for the protection of the agricultural land and therefore of the inundation fields. Provincial by-laws prevent construction outside building locations identified by provinces, and agricultural land cannot be turned into buildable land. The application of sustainability principles also require that urban developments must occur in existing urban areas. The necessity to deviate from this principle must be explicitly demonstrated.

Quality handbooks have been prepared by the provinces to assist applicants and municipalities in achieving a higher quality of development proposals.

The responsibility for the implementation of the Heritage Act falls upon several actors, including provinces and municipalities, clearly defined in the Act itself.

The Cultural Heritage Agency is responsible for two government subsidy schemes that support conservation and repurposing of protected monuments; since 2012 the provinces have been responsible for restoring national monuments.

The assurance of the quality of new developments is also an important factor complementing development restrictions. A Spatial Quality Advisory Team was established in 2005 for the New Dutch Waterline; it provides solicited or unsolicited advice on developments, challenges and trends affecting the NDW at a larger scale. Since 2016 it has a new composition and a new task: issuing opinions (e.g. on energy transition, quality assurance principles, terms of reference for HIA's) to ensure the balance between spatial development and the heritage value of the NDW. It has drawn up a memorandum on Visual Integrity of the NDW.

Once the NDW and the DLA become one single property – the Dutch Water Defence Lines (DWDL) – the Spatial Quality Advisory Team will extend its scope of responsibility to the whole property, including the DLA.

For highly dynamic areas – three have been identified by the State Party which amount to 20% of the area of the DWDL – more focused area analyses have been devised and are being elaborated to examine what is the capacity of the property, under what conditions and where, to accommodate developments carried out in a way to support or enhance the integrity of the property and where this might pose challenges. In addition, in its Interim Report, ICOMOS requested additional information on the highly dynamic areas. The State Party has transmitted one sample Area Analysis for the Laagraven area, south of Utrecht, between two urban areas – Houten and Nieuwegein. ICOMOS observes that it is a notable model study for other sensitive areas. It highlights that Laagraven is a residual green area which still preserves its rural character and the continuity of the DWDL in a metropolitan area, where the waterline has already been seriously impacted.

ICOMOS considers that the results of the area analyses should be used as the basis for a strategic Heritage Impact Assessment approach for the development projects.

Management system

In 2014 the four provinces of Noord–Holland, Gelderland, Noord-Brabant and Utrecht signed an administrative agreement for the extension of the DLA. As per the Joint Arrangements Act, the four provinces have signed a partnership agreement that establishes they will act jointly as the site-holder and the existing management entities for the DLA and NDW will eventually be fully merged into one single overarching management office as of 1 July 2020. A small portion of the NDW falls within the Province of Zuid-Holland. The five provinces have agreed that the four provinces where the majority of the DWDL is located will look after the small section in Zuid-Holland. However, the

Province of Zuid-Holland will continue to perform its spatial-planning and protection tasks.

The site–holder office will be managed by the four provinces under the direction of an independent Chair, with a representative of the Cultural Heritage Agency as advisor. The site-holder will rely on the human resources of the Knowledge Centre of the waterlines, the Spatial Quality Advisory team. External support will also be provided by the Cross-Waterline Entrepreneurship Foundation, which supports entrepreneurs in and around the DWDL. The think tank Line Expert Team – 16 experts in 8 different subjects – is supported by two Provinces and offers expertise and advice to owners, managers and operators, including municipalities and water authorities.

The collective site-holder has developed a road map to achieve six key management objectives, among which is the preparation of a joint management plan, from 2021.

The current management plan covers the period 2018–2020 and outlines the cooperation agenda, based on the six above-mentioned objectives, and on strategic goals. A calendar for implementation of the tasks related to the six objectives is presented.

Visitor management

A range of opportunities, including visitor centres, museums, publications, educational programmes, events etc, exists and has recently been further developed to present and communicate the value and meaning of the DWDL.

Professional and volunteer organisations take care of the interpretation and communication of the values of the property. Professional training is organised for volunteers to ensure that the interpretation maintains high standards. Children and young people are the focus of many educational programmes, including digital kits.

Bicycle and walking routes have been developed along which specific themes related to the DWDL can be experienced.

A promotion strategy based on the motto 'Water as an ally' is being implemented through different means and channels with the support of different partners. Activities are gathered into one single website for ease of reference.

Community involvement

Although there is no specific section on this aspect, from the nomination dossier it emerges that the proposed extension would not be possible without the support of the local communities, particularly in relation to the way in which the management system has been envisaged.

Evaluation of the effectiveness of the protection and management of nominated property

Protection designations and mechanisms exist. The main challenges derive from the negotiations that might occur in the implementation of the protective measures and balancing of different interests, considering that the nominated extension is located in a very dynamic urban conurbation, prone to significant pressures.

The State Party has the capacity to run a complex management system; however, there have been precedents where coordination mechanisms, communication and management aspects have not been effective, which have resulted in developments negatively impacting on the Outstanding Universal Value of the DLA and have triggered the proposal for reductions.

The main issue in this regard relates to the successful implementation of coordination/concertation mechanisms related to development and the role given to heritage preservation.

Planning provisions in the inner part of the DWDL, which appears to be the more exposed to pressures, need further clarification: the whole potential of the legal and planning framework is to be harnessed to ensure more robust protection. A thorough analysis of the current planning previsions would assist in clarifying where plans and envisaged developments might require an assessment of their impact on the property's attributes, and potential reconsideration or mitigation.

In some cases, e.g. in the Utrecht area, several development projects exist and they need to be addressed all together through planning, coordinating the various projects, seeking for alternatives that impact less on the Outstanding Universal Value, integrity and authenticity of the nominated extension and eventually mitigating their potential impacts.

The governance and management frameworks appear adequate to the task, given the complexity of the property, the innumerable actors and stakeholders. Due to the high dynamicity of the region, effective coordination and communication mechanisms are crucial to ensure the effective preservation of the already-inscribed property and the nominated extension, as well as meeting development needs.

ICOMOS considers that the protection and management frameworks are adequate to ensure the protection of the proposed Outstanding Universal Value of the proposed extension, its integrity and authenticity, and to deal with the challenges posed by the great pressure for development existing in the region. Given the sheer size of the proposed extended property, ICOMOS however observes that a considerable coordination, communication and management effort will need to be deployed by the site–holder and by the State Party. In this regard, ICOMOS considers that special planning instruments might be needed in specific areas, in particular in Utrecht, in order to address comprehensively development pressures and potential impacts.

6 Conclusion

ICOMOS commends the State Party for the proposed extension, that can be considered very challenging, taking into account that the territory in which the inscribed property and its proposed extension are located is overall highly dynamic.

However, due to its complexity and sheer size, this proposal also faces some challenges: the need for revision of the delineation of the boundaries of the nominated extension in some stretches, the revision of the buffer zone, which does not appear adequate at this stage to provide the added layer of protection to the existing property and to the nominated extension, both on the inner and outer sides of the waterline, as well as the difficulties posed by the request for some reductions.

ICOMOS regrets that some inappropriate developments have occurred in some minor areas of the inscribed property such that their integrity and authenticity have been compromised, and understands the reasons why the State Party has decided to propose their removal. ICOMOS has carefully weighed all seven requests and has come to the conclusion that only six might be acceptable. However, before considering them approvable, ICOMOS needs to see important conditions fulfilled: they should all be included in the buffer zone and should be equipped with specific ad-hoc mechanisms that can restore some memory of their past role, through careful design and landscaping, and conditions in the medium- or long-term.

ICOMOS also considers that no further proposals for reduction can be accepted for this property.

The removal of the zone B2.2 – Geniedijk, cannot be accepted as, in this stretch, the section of the DLA is already very narrow, and this proposed further reduction would diminish the integrity of the whole property. In this area proposed developments need to be revised, e.g. on the outer side, the planned complex should be kept further away from the waterline.

For the nominated extension, the area near Utrecht appears to be the most problematic due to high development pressures. There, the boundaries of the nominated extension need some local revision in order to include all elements reflecting part of the memory of their past conditions through careful design and landscaping.

ICOMOS welcomes the delineation of a buffer zone for the DLA and the proposed extension. However the current rationale for the delineation of the boundaries – a 50m strip of land on the inner side and 10km of buffer zone on the outer side - appears rather mechanical and not tailored to the specific needs of the different sections of the DLA and the proposed extension. ICOMOS considers that the buffer zone should be thoroughly revised and equipped with ad-hoc mechanisms and differentiated zoning in order to guarantee the necessary added layer of protection. The whole legislative framework, with the recent reforms, represents a robust basis for establishing specific regulatory and planning measures for the buffer zone.

Since 2011 and 2016, the legal framework has been strengthened and the new Environment and Planning Act, which will come into effect in 2021, along with the Draft National Strategy on Spatial Planning and Environment, appear adequate to address the challenges of reconciling the protection and conservation of heritage and the need for development.

However, a survey and assessment of existing planning previsions and their coherence with the need to ensure the protection of Outstanding Universal Value of the property and its extension would be necessary to guarantee that no similar situations to those that generated the request for removal will happen in the future. This will strengthen specific protection measures which will be applied to a revised buffer zone.

7 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the nomination of the extension of the Defence Line of Amsterdam to include the New Dutch Waterline and become the Dutch Water Defence Lines, the Netherlands, be **referred back** to the State Party in order to allow it to:

- Revise the boundaries of the proposed extension in the section near Utrecht in order to include all elements that make up the waterline and the reciprocal visual relationships between these elements;
- Exclude from the proposal for reduction the area B2.2 – Geniedijk;
- Include all other six proposed reductions within the buffer zone and provide them with ad-hoc mechanisms that prevent further pressures and offer the opportunity to recover in the medium- or long-term, at least part of the memory of their past conditions through careful design and landscaping;
- Revise thoroughly the boundaries of the buffer zone, both on the inner and outer sides of the property, by expanding it on the inner side, including all prohibited circles and the inundation areas; as well as the area of Maarschalkerweerd, one of the few places where the continuity and visual relationship between the inner and outer ring of Utrecht is still perceivable, redefining the boundaries on the outer side in order to make them coincide with physical elements or administrative and property delimitations;

- Equip the buffer zone with ad-hoc protection measures, if and where necessary by making use of distinct zoning, so as to ensure an effective added layer of protection;

- Make an inventory of all current planning previsions in force for the inscribed property as well as the nominated extension and the whole buffer zone, and assess whether they are coherent to sustain the Outstanding Universal Value of the Defence Line of Amsterdam and the proposed Outstanding Universal Value of the extension.

Additional recommendations
ICOMOS further recommends that the State Party give consideration to the following:

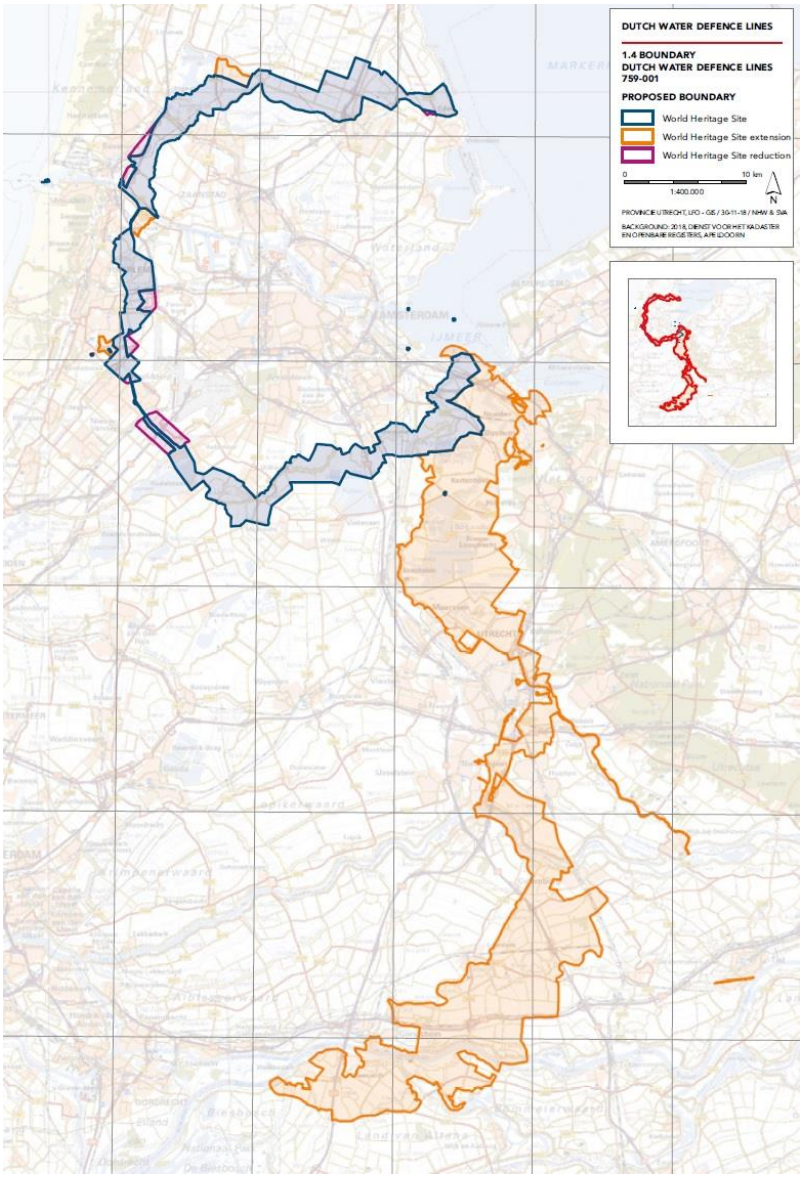
a) Strengthening the protection of the landscape dimension, particularly in key sections of the Dutch Water Defence Lines, e.g. in the Utrecht area and Laagraven especially, through ad-hoc plans that enhance the historic landscape features and mutual visibility among the defence elements,

b) Revising as a matter of urgency the project of the housing development near Woudrichem,

c) Providing the World Heritage Centre and ICOMOS with upcoming projects, including the final option for the A8-A9 junction, for review,

d) Finalising all sensitive area analyses and embed their conclusions in planning instruments,

e) Strengthening the visibility and interpretation of the Defence Line of Amsterdam and its proposed extension;



Map showing the boundaries of the proposed extension of the property