IUCN
Rue Mauverney 28
1196 Gland
Switzerland

Tel. +41 22 999 0000
Fax +41 22 999 0002
mail@iucn.org
www.iucn.org

ICOMOS
international council on monuments and sites

Professor Mahmood Al-MullaKhalaf
Permanent Delegate
Permanent Delegation of Iraq to UNESCO
Maison de l'UNESCO
1, rue Miollis
75732 Paris

27 January 2016

World Heritage List 2016
The Ahwar of Southern Iraq: refuge of biodiversity and the relict landscape of the Mesopotamian Cities (Iraq) – Interim Report and request for supplementary information

Dear Sir,

As per the revised Operational Guidelines for the Implementation of the World Heritage Convention and its Annex 6, the Advisory Bodies, IUCN and ICOMOS, have been requested to submit a short interim report for each nomination currently under evaluation by 31 January 2016. We are therefore pleased to provide you with the relevant information outlining issues related to the evaluation process and a further request for supplementary information.

The ICOMOS technical evaluation mission to "The Ahwar of Southern Iraq: refuge of biodiversity and the relict landscape of the Mesopotamian Cities" was carried out by Mr Assad Seif (Lebanon) from 6 to 13 October 2015, while the IUCN mission took place from 15 to 22 November 2015 and was carried out by Mr Faisal Abu-Izzeddin (Lebanon). Both mission experts highly appreciated the availabilities and support provided by the experts in your country for the organisation and implementation of the mission. Please convey our sincere thanks to all of the officials, scientists and contributors that assisted the mission.

On 06 August 2015, a letter requesting additional information was sent by ICOMOS on the following issues: selection of components, relict cultural landscape and mixed property. Please convey our thanks to all the officials and experts for the additional information you provided on 16 November 2015 and for their continued cooperation in this process.

At the end of November – beginning of December 2015, the ICOMOS World Heritage Panel evaluated the cultural and mixed properties nominated for inscription on the World Heritage List in 2016. The IUCN World Heritage Panel was held from 30 November to 4 December 2015 and evaluated the natural and mixed properties, and cultural landscapes. This process will conclude in March/April 2016, following which the Advisory Bodies evaluation reports will be issued to the UNESCO World Heritage Centre.

Both IUCN and ICOMOS Panels examined in detail the nomination dossier, the field mission reports and desktop reviews of external reviewers, the additional information submitted to ICOMOS, as well as other references regarding the nominated properties. Below is the feedback from each of the Panels.

ICOMOS thanks you for the availability of your representatives at the meeting held via conference call on 28 November 2015 with some of their Panel members, and with IUCN.

As explained during this meeting, the ICOMOS Panel reviewed the documents and has identified areas which would require the need to reconfigure the nomination dossier as follows. The Panel considered that although the three Mesopotamian urban centres of Ur, Uruk and Tell Eridu have great potential to be inscribed on the World Heritage List, they are not yet ready to be recommended for inscription. They also considered that the three cities should not be associated with the four wetland components of the current series.

Before the ICOMOS Panel could consider any recommendation for inscription for the three Mesopotamian cities, they considered that some rearrangement of the way the sites are presented for nomination needs to be put in place. This re-arrangement needs to be undertaken in two ways:

1. The three main cultural components of Ur, Uruk and Tell Eridu should be put forward separate to the four wetland components;

2. The boundaries of the cultural components of Ur, Uruk and Tell Eridu should be extended.

In addition, more details need to be provided on how the serious conservation issues in the cities are to be addressed.

The ICOMOS Panel strongly supported the idea that the cities that arose along the Euphrates River had a highly productive symbiotic relationship with the marshes through the way that they provided water for irrigation and transport, reeds for fodder, fuel and building materials, etc. essential to their prosperity, and also strong sacred associations. But the marshes that were the lifeblood of the cities are not those being nominated. The ICOMOS Panel did not consider that this fundamental association could be demonstrated by the four natural marshland areas currently being nominated far away from the cities.

The marshes that most immediately supported the Sumerian cities have dried up. Over centuries, the marshlands have moved south-east away from the cities as the river delta shifted, and the Euphrates River has changed its course, leaving the cities separated from their marshes by over forty kilometres of desert. But, as has been demonstrated in the surveys undertaken in the hinterland of the three cities, evidence of canals, ports and many other remains in the relict landscapes that remain do show clearly how the marshes were used at the time the three cities were flourishing.

By contrast, the four areas of present day marshes that are nominated are a considerable distance away from the cities, are places of biodiversity and although they have cultural sites, these are not linked historically to the growth and development of the three cities and do not contain cultural attributes that relate to the potential cultural criteria.

For these reasons, the ICOMOS Panel therefore considered that the three cultural components needed to be separated from the four wetland components, and that furthermore the boundaries of Ur, Uruk and Tell Eridu needed to be extended to incorporate evidence of the marshes and harbours that once were their support, thus linking them to the relict marshland landscapes, in a way that might be explained and understood.

In this regard, the Panel noted that the nomination dossier mentioned various non-invasive investigation and other planned future surveys in the areas surrounding the cities (and these initiatives were also explained by the State Party to the ICOMOS mission), that would allow the cities to be understood in relation to their relict marshland landscapes.

In summary, the ICOMOS Panel considered that the three cities have great potential to contribute to the World Heritage List. If they are to be celebrated for the extraordinary relationship with the marshes for over two millennia, which not only promoted agriculture and trade but also influenced religious beliefs, then the series needs re-structured to differentiate the ancient cities and the relict and now dried former marshlands

of archaeological importance, from the modern nature conservation values of the areas that are still wetland areas (the four so-called "natural components" of the nomination), and far more details provided on the evidence that is embedded in the areas surrounding the cities for the use of the marshes.

The IUCN Panel greatly appreciated the efforts that have been made in relation to the nomination that has been prepared, but also noted some points where additional information is required, in relation to the nature conservation values of the four wetland components.

1. Please indicate the minimum water flows required maintaining the proposed Outstanding Universal Value of the wetland components of the nominated property, the degree to which these flows are being met, and the degree of threats to water supplies needed to maintain the property;

2. Please provide a fully up-to-date statement on the biodiversity values of the property, including threatened plants and species, including the sources of information used to derive this information.

In relation to the above comments by ICOMOS, IUCN concurs that the three cultural components of the nomination, Ur, Uruk and Tell Eridu, do not carry natural attributes that contribute significantly to the justification of the natural criteria.

IUCN also further notes that significant further work is required to complete this nomination to the standards required in the Operational Guidelines, notably in relation to the configuration for a mixed property, the difficulties in combining essentially separate listings of components related to cultural and natural heritage, and the need for considerable strengthening of the management system, and management capacity and resources. These issues also need a fully coordinated approach to supporting further work between the cultural and natural authorities, and working with both IUCN and ICOMOS in the same process.

ICOMOS and IUCN will welcome contributing to the further work needed to secure a viable nomination that meets the standards of the Operational Guidelines to the World Heritage Convention. We also consider these matters are best discussed in further joint meetings/conference calls with IUCN and ICOMOS. In order to consider the re-shaping of the nomination dossier that is required, given the range of interrelated issues mentioned above and the short time which is allowed by the Operational Guidelines to address these issues, ICOMOS and IUCN would welcome, as a next step to follow the present report, a round-table discussion on how they might engage in dialogue with the State Party to take forward the nomination to achieve a positive outcome in the next cycle of nominations. We will be in direct contact with the delegation to arrange this meeting, as was also discussed with H.E. Dr. Jassim Al-Falahi and Mr. Tim Badman at the meeting held in UNESCO on 21st December 2016.

In addition to this meeting, and other discussions to be held, we would appreciate your written response to the above points as soon as possible, in order to facilitate the evaluation process, but **no later than the 28 February 2016**, as per paragraph 148 of the Operational Guidelines. Please note that any information submitted after this date will not be considered by the Advisory Bodies in their evaluation for the World Heritage Committee. It should be noted, however, that while ICOMOS and IUCN will carefully consider any supplementary information submitted, they cannot properly evaluate a completely revised nomination or large amounts of new information submitted at the last minute. So we request to keep your response concise and respond only to the above requests.

Supplementary information should be submitted officially in three copies to the UNESCO World Heritage Centre in order for it to be registered as part of the nomination. An electronic copy of any supplementary information to both the UNESCO World Heritage Centre (a.balsamo@unesco.org), ICOMOS Headquarters (apsara.sanchez@icomos.org) and IUCN Headquarters (christelle.perruchoud@iucn.org) would also be helpful.

Taking into account your response, ICOMOS and IUCN will formulate its final recommendation to the World Heritage Committee which will meet from 10 to 20 July 2016 in Istanbul, Turkey.

Please do not hesitate to contact Ms Christelle Perruchoud, IUCN World Heritage Programme Assistant (Tel: +41 22 999 0358; Fax: +41 22 999 0002; email: christelle.perruchoud@iucn.org) or Mrs Gwenaëlle Bourdin, Director of the ICOMOS Evaluation Unit (Tel: +33 (0)1 41 94 17 59, email: gwenaelle.bourdin@icomos.org) if you have any questions regarding this request, or if you would wish to arrange a meeting or phone call to discuss this request.

Please allow us to reiterate our thanks for your support of the World Heritage Convention and for the conduct of the ICOMOS and IUCN missions. We look forward to your responses to these points, which will be of great help in our evaluation process.

We thank you for your support of the World Heritage Convention and the evaluation process.

Yours faithfully

Gwenaëlle Bourdin
Director
ICOMOS Evaluation Unit

Tim Badman
Director – IUCN World Heritage Programme

Copy to Qahtan Al Abeed, Director of Basrah Antiquities & Heritage
Mudhafar Salim
Iraqi National Commission for UNESCO, Mr. Hasanain Fadhil Abaas Mualla, Secretary-General
UNESCO World Heritage Centre, Mrs. Nada Al Hassan and Mr. Alessandro Balsamo
IUCN Regional Office for West Asia, Mr. Fadi Shraideh, Regional Director

DÉLÉGATION PERMANENTE
DE LA REPUBLIQUE D' IRAK
AUPRÉS DE L' UNESCO - PARIS

البعثة الدائمة
لجمهورية العراق لدى اليونسكو
باريس

Ref: 115/16

Paris, 24 February 2016

Dear Madam, Sir,

I would like to refer to your letter of 27 January 2016 concerning the nomination of The Ahwar of Southern Iraq site on the World Heritage list, kindly find herewith the letter of Mr. Qais Hussein Rashed, the Iraqi Deputy Minister of Culture, concerning your request on this matter.

Thank you for your cooperation and Best regards.

M. Khalaf

Prof. Mahmood Al-Mullakhalaf
Ambassador, Permanent Delegate
Permanent Delegation of Iraq
to UNESCO

Ms. Gwenaëlle BOURDIN
Director – ICOMOS Evaluation unit

Ms. Christelle PERRUCHOUD
Director – IUCN World Heritage Programme
Mr. Tim BADMAN
Director – IUCN World Heritage Programme

1, rue Miollis, 75015 Paris - Tél. : 01 45 68 34 21 - Fax : 01 43 06 79 87
e-mail : dl.irak@unesco-delegations.org

Ms Gwenaelle Bourdin

Director

ICOMOS Evaluation Unit

11 rue Séminaire de Conflans

94220 Charenton-le-Pont France

23 Feb 2016

World Heritage List 2016

The Ahwar of Southern Iraq: refuge of biodiversity and relict landscape of the Mesopotamian cities

Dear Madame,

We are writing in response to the joint ICOMOS/IUCN letter dated 27 January 2016 for which we thank you.

We would like first to express our sincere thanks to all the experts who have evaluated the nomination be it as part of desktop reviews or within the framework of the ICOMOS and IUCN World Heritage Panels. We would also be grateful if you could convey our special appreciation to Mr Assad Seif and Mr Faisal Abu-Izzedin who undertook the field missions on behalf, respectively, of ICOMOS and IUCN. Iraqi professionals in charge of the various components of the proposed property, together with officials and other stakeholders greatly valued the open and productive discussions they had with the external experts.

After careful consideration of the opinions expressed by the ICOMOS and IUCN World Heritage Panels, we would like to clarify the following points.

We take good note of the ICOMOS Panel's advice to reconfigure the dossier by separating the cultural and natural components, and extending the boundaries of the cultural components to include more evidences of the presence of ancient marshes. Rest assured that we appreciate the rationale behind these advices, and that we are fully aware of the potential OUV of Ur, Uruk and Tell Eridu either as one serial cultural nomination or as three individual nominations.

We would like to state however that we made a deliberate choice to submit the three archaeological sites as part of a mixed nomination which, in our view, is what justifies their presentation under criterion (v). If we had decided to submit them separately from the natural components, it is unlikely that we would have emphasized their relationship to the marshlands in such a way. Rather we would have built a case for a consideration of their OUV under criteria (ii), (iv) and (vi) in addition to criterion (iii).

Our choice to submit these sites as part of a mixed serial nomination is not premised on an under-valuation of their cultural importance either collectively or individually. Rather, under criterion (iii), we argue that these cities offer a testimony of the outstanding contribution of

southern Mesopotamian urban culture to the history of mankind, a fact that goes well beyond their reliance on marsh resources and that has been widely documented by scholars. With such outstanding sites, we are well aware that we could have added several other cultural criteria to the dossier. However, early on during the dossier preparation, we were advised by the World Heritage Centre to limit the number of criteria under which to present the nomination, and we felt that criterion (iii) was the one that most thoroughly encompassed the various attributes of these sites.

Yet we also believe that pairing these cities with the contemporary marshlands allows to add another dimension to their OUV, one seldom considered in World Heritage properties and yet of paramount importance. Under criterion (v), we propose to highlight the impact of the unstable deltaic landscape of the Tigris and Euphrates upon the rise and fall of large urban centers in southern Mesopotamia. Southern Mesopotamia is by no means the only example of a civilization affected by environmental change, a reality we have acknowledged in the global comparative analysis under Section 3.2.2 of the nomination dossier. However, we consider that the specific environmental conditions of southern Iraq (namely the recession of the Gulf over time) offer a rare opportunity for a World Heritage property: to illustrate the effects of environmental change by including in the same narrative and management system the remnants of three major archaeological sites standing above desiccated landscapes, on the one hand, and the remains of the contemporary marshlands, verdant and teeming with wildlife but facing serious environmental threats, on the other hand. Such a mixed property would demonstrate in the most striking way the importance and urgency of national and international efforts to ensure the conservation of its outstanding natural and cultural attributes. It would therefore be in line with the objective of making the World Heritage Convention a protection tool for outstanding heritage properties globally.

We consider that the value of the cultural components under criterion (v) should be evaluated not so much with regards to their proposed boundaries, but rather in conjunction with the natural components of the nomination. We argue that the contemporary marshes represent the closest living examples of the marshes of antiquities and that, taken together with the cultural components, they offer an invaluable example of human interaction with the environment in the context of irreversible change. It is therefore the cultural value of the contemporary marshes which we consider under criterion (v). Conversely, the three cultural components might not carry natural attributes that contribute significantly to the justification of the natural criteria, as put forth by IUCN, but in themselves they represent a powerful justification in favour of biodiversity conservation.

This is why we wish to keep the cultural components as part of a mixed nomination and within their proposed boundaries that already encompass all their major archaeological features and attributes. We would also kindly like to invite ICOMOS and IUCN Panels to reassess their positions as regards combining the cultural and natural components of the nomination. We nevertheless understand that the perspective we propose is unusual for a mixed World Heritage property. We stand ready to consider a decision by the World Heritage Committee to inscribe only some components of the nominated property,

although we firmly believe that it would be detrimental to the conservation of the proposed property as we conceive of it.

As regards issues of conservation for the cultural components, we refer the ICOMOS Panel to the attached Consolidated Management Plan prepared for the property and which addresses all main conservation issues identified by experts. Kindly note that an implementation plan and monitoring system are currently under development via on-site training for the staff in charge of the various components of the property.

Sincerely,

Qais Hussein Rashed

Deputy Minister of Culture

The Ahwar of Southern Iraq: Refuge of Biodiversity and the Relict landscape of the Mesopotamian Cities

Supplementary Information

Prepared by the Ministry of Health and Environment - Iraq.

Introduction

In reference of the operational guidelines (paragraph 148, item-i), Iraq is committed to provide the additional information requested by the ICOMOS and IUCN panels after examining the documents submitted by the State party - Iraq. Hence, the State Party – Iraq, is providing the requested additional information in this report that gives the answers to the questions kindly raised by the IUCN regarding the natural proposed components.

In order to provide concise yet accurate supplementary information on the natural parts of the nomination, the Ministry of Health and Environment has worked closely with the Center for the Restoration of the Marshlands (Ministry of Water Resources) to come up with the updated and reliable information on the current hydrological status in the marshes in general and in the proposed natural components specifically as a reply on the first question submitted by the IUCN about the current status of the water-flow in the marshes. As for the second question, the Ministry of Health and Environment has mobilized its technical staff in order to collect the up-to-date information about the status quo of biodiversity (with more focus on the threatened species) in the targeted areas of the Southern marshes of Iraq within the limited allocated time.

The nominated area (Ahwar of Southern Iraq - represented by the four proposed natural components) has passed through severe period of lack of water during summer 2015, however, it has self-recovered recently, and this might support the argument of the resilience of the ecosystems in the nominated vast wetlands, therefore, back up the integrity of the natural values of the nominated area.

The current supplementary report provides additional information on the following:

- The minimum water flow required to maintain the proposed OUV of the wetlands components of the nominated property, the level to which these flows are being met, and the level of threats to water supplies required to maintain the property; and
- A fully up-to-date statement on the biodiversity values of the property, including threatened species.

The current status of hydrology of the natural components of the proposed property

The proposed Outstanding Universal Value in the natural components is dependant to a large extent on water for being nominated as natural components marshlands. In addition to the area's attributes of tolerance and vastness of extending waterbodies and reed-beds, the hydrological system remains the cornerstone factor in the integrity of the proposed natural components and the biological corridors that represent life veins of the area.

This fact was taken into consideration in the preparation of the nomination when a lot of technical discussions were made on the integrity of these vast areas of waterbodies most of which will be vulnerable in case of any water shortage. The delineation of the proposed natural components was drawn carefully, attaching the core of the component directly to the sources of the water and concentrating on the relatively deeper areas including the shallow margins wherever the natural values exist.

During the early stages of the preparation of nomination, the natural team has consulted the map prepared by the Center for Restoration of the Iraqi Marshlands and Wetlands (CRIMW) that shows very carefully the bulk areas to be targeted for the re-flooding program since 2004 (see Annex 1). The entire boundaries of the proposed four natural components were made inside the delineation of the re-flooding scheme in order to secure water flow for the natural values and the critical habitats as the holding attributes to the ix and x criteria on which the proposed components were nominated. This technique, in addition to spotting the proposed components over relatively deeper grounds, secures water-flow for the proposed components and their corridors and margins even when the minimum flow scenarios.

Additionally, despite that the marshes lie at the bottom parts of the hydrological system in Iraq (being in Southern Iraq), the general national policy is taking special care for these areas, and this was reflected in the 'Strategy for Water and Land Resources in Iraq (SWILRI)' that was prepared and adopted by the Ministry of Water Resources in Iraq (MoWR) (see Annex 2). SWILRI deals with the marshes of Southern Iraq smartly by dividing the area into three key subareas supported by active feeding hydrological system. It also secures, for the first time ever, formally very clear share for the marshes of Southern Iraq with specific amount of water. SWILRI too devotes 3.305 bcm/year to flood 50% of the original area of the marshes (at 1973) to flood 5.560 km^2 of the marshes, taken into consideration that the entire areas of the four proposed components are 2.028 km^2. This allocated flow has neither considered water flow that comes from the Iranian side nor the water from the 'Main Outfall Drain'. According to SWILRI, the later source (MOD), permanently feeds the southern parts of the marshes with 2.611 bcm/year.

The Ministry of Health and Environment along with their partner Ministries and agencies realizes the vital role of the water flows in the issues of the nominated marshes, and this was, and still is, a key driver for the political endeavors inside and outside the country by adopting mutual dialogue with the upstream counties (Turkey, Syria, and Iran) in order to permanently secure the minimum flows to the marshes of Southern Iraq in addition to the guarantees adopted by SWILRI.

Both, the Central and the Local Governments, expressed their interest in the project of nominating the marshes of Southern Iraq on the World Heritage List, and started in mainstreaming that in their central and local policies despite the fact that the potential property was not inscribed on the WHL yet. This political support contributed to strengthening the process of the nomination and sustaining the values of the area, and pushes the decision-makers to put this issue on their priorities, especially sharing the water-flows.

The table below shows briefly the total areas targeted for flooding according to SWILRI against the areas of the proposed natural components.

Marsh name	The area of the proposed component (km^2)	The areas targeted for reflooding (km^2)
Huweiza Component	481	1377
Central Marshes Component	624	2420
Hammar Components	1003	1763
Total	**2028**	**5560**

According to the recent documents presented by the CRIMW, the annual flows for marshes of Southern Iraq reached up to more than two million cubic meters, taken into consideration that the year 2015 was not good water year. The continuous monitoring programs showed that during the ultimate seasons of evaporation at 2015, however they were not thorough or deep enough to express the situation with the elements of the potential criteria ix and x, were not bad for the breeding of some threatened bird. However, effects of the water quality were spotted in some areas on the marsh.

The details of the water flows released to the marshes in 2015 provide a general idea about the degree to which the required water flows are being met compared with the release scheme with the regular monitoring activities that were conducted during the same year. Based on the data provided by the Environment Headquarters in the three Governorates (Basra, Maissan, and Thi-Qar), it seems that the natural values related to the proposed criteria ix and x are still maintained by lack of absence of any natural phenomena that the area regularly holds to form essential components of the proposed criteria ix and x.

The table below shows the water flows amounts (1000m^3) that were released to the proposed natural components at 2015.

Marsh name	Water flow released (1000m^3)
Huweiza Component	314,358
Central Marshes Component	887,859
Hammar Components	936,506
Total	**2,138,723**

We should make it clear that the water flows for the marshes of Southern Iraq are subject to various factors that affect the amounts of water inside and outside Iraq. The ongoing upstream projects at Turkey in addition to the water consumption along the rivers Euphrates and Tigris inside and outside Iraq affect the quantities of the water that should flow naturally to the marshes. One of the most pressing potential threats to the water flows is the increasing need for the water for different purposes inside Iraq. This was discussed clearly in SWILRI, and it was the key driver that led to take the decision of securing specific annual amounts of water for the re-flooding of the marshes of Southern Iraq. At the same time, SWILRI emphasizes adopting the wise use of water for agricultural purposes and abandoning the old techniques that waste huge amounts of water annually in order to have the water feed the marshes when this strategy comes into force. Also, both Ministries (MoHE and MoWR) are adopting an intensive awareness program aiming at promoting the wise use of water for different purposes. Being one of its key projects, with the close coordination with its partners, MoHE is taking all the means towards sustaining the water supplies required to maintain the proposed natural OUV and the daily needs and livelihood of the locals in the marshes of Southern Iraq.

The up-to-date statement of the Biodiversity of the natural proposed components

The MoHE has adopted long-term monitoring program on biodiversity in Iraq in general and in the marshes in particular through the two sections (the Marshes Departments, and Biodiversity Department). Based on the results of the current monitoring in the marshes, and covering the period after the preparation and submission the nomination (2013-2015), all of the threatened species and Biodiversity elements that were recorded at the marshes are still the same. It was also based on some current fieldworks in the marshes that led to the same conclusion. Furthermore, the results of the recent researches have shed more light on the importance of these key ecosystems and added some few more species which have been spotted by recent observations. With technical assistance from the ARC-WH, MoHE is adopted annual reporting system that documents the conservation status of the proposed OUV of the marshes.

On-ground conservation measures led by the MoHE

The nomination of the marshes of Southern Iraq on the WHL has had a significant impact amid the governmental and public levels nationally and locally. Iraqis respect the marshes and admire their key economic and environmental role; subsequently, nominating this area on the WHL was very accepted action even by the marsh dwellers themselves. This is what the Ministry have realized during the consultancy symposiums and meetings. This matter made it easy to market and mainstream for this new idea because the public realizes the key factor in this issue is the water, this factor that can not be acquired without working on the international level. Some of the physical indicators for the interest of the Government were issuing the new bank note (50,000 ID) with a landscape from the marshes of Southern Iraq, and issuing group of postal stamps with some scenes from the marshes (see Annex 3).

After the dossier was submitted to the UNESCO by the Iraqi Government, the actions were taken towards establishing and reinforcement of the management system of the marshes by the related governmental institutions, locals, and other stakeholders. Prior to developing the management plan for the nominated property, the MoHE, starting from its core mission, has initiated in various conservation activities since its formation. The work was embodies in different parallel lines towards conserving the natural resources of the marshes that were taken not only by the MoHE, but it extended to other related Ministries and institutions.

The key factor of the on-ground actions led by the Ministry is the ongoing monitoring program that target the biodiversity, the water-quality & quantity, the socio-economy, threats ... etc (see Annexes 5, 7, 8, 9, 12, and 13). The other key line is the education and awareness campaigns for decision-makers and locals (see Annexe 6). In addition to the coordination among the different institutional stakeholders (see Annexes 10 and 11). Being the oil extraction activities around the marshes one of the key potential threats, an oil-spill response-plan was developed and published that consists of contingency plans regarding any oil-spill that might happen in the area (see Annex 4).

One of the key goals of these activities on-ground is to spot the threats to biodiversity and take immediate action. The most frequent threats to the biodiversity and natural values are the illegal hunting and fishing in addition to the unsustainable reed-harvesting. These different kinds of threats are being tackled with by the communication with the executive authorities mainly on the local level where it being dealt with immediately.

Referring to the results of recent monitoring activities, it seems that the threatening factors are the same as were reported in the nomination file with no significant changes, and this might be due to the stability of the lifestyle of the locals inside and around the marshlands.

Key natural features around the cultural proposed components

Despite that the three proposed cultural components are located in deserted areas not very far away of the marshes (*due to the historic geological changes that pushed the marshes southeastward*), the natural landscape around these areas still consists of unique wildlife with natural values. Despite that there were no dedicated studies that link the existing relationship of the key archaeological sites with the natural elements around these cities, but we still believe that without the rich natural landscape none of these cities was placed where it is now. Based on this, we think it would be important to shade more light on the natural and ecological values that contributed to the raising of these ancient cities especially that many of the Sumerian tablets have reflected the richness of these areas in biodiversity at that time. Ur, the closest archaeological site to the marshes was not the richest in biodiversity due to the existence of the settlements and being the area frequently crowded.

A baseline surveys were made by experts from local NGO shaded the light on the natural landscape around the ancient cities of which the table below summarizes these observations.

Table shows the results of the baseline biodiversity surveys around the nominated archaeological areas (based on IOCN[1] recent surveys)

Arc. site name	Preliminary numbers of species			Ecoregion and habitat
	plants	mammals	Birds	
Uruk proposed component	**29**	**13**	**65**	Arabian Desert and East Sahero-Arabian xeric shrublands
Ur proposed component	**11**	**6**	**43**	Arabian Desert and East Sahero-Arabian xeric shrublands
Eridu proposed component	**32**	**12**	**61**	Tigris-Euphrates alluvial salt marsh And Arabian Desert and East Sahero-Arabian xeric shrublands

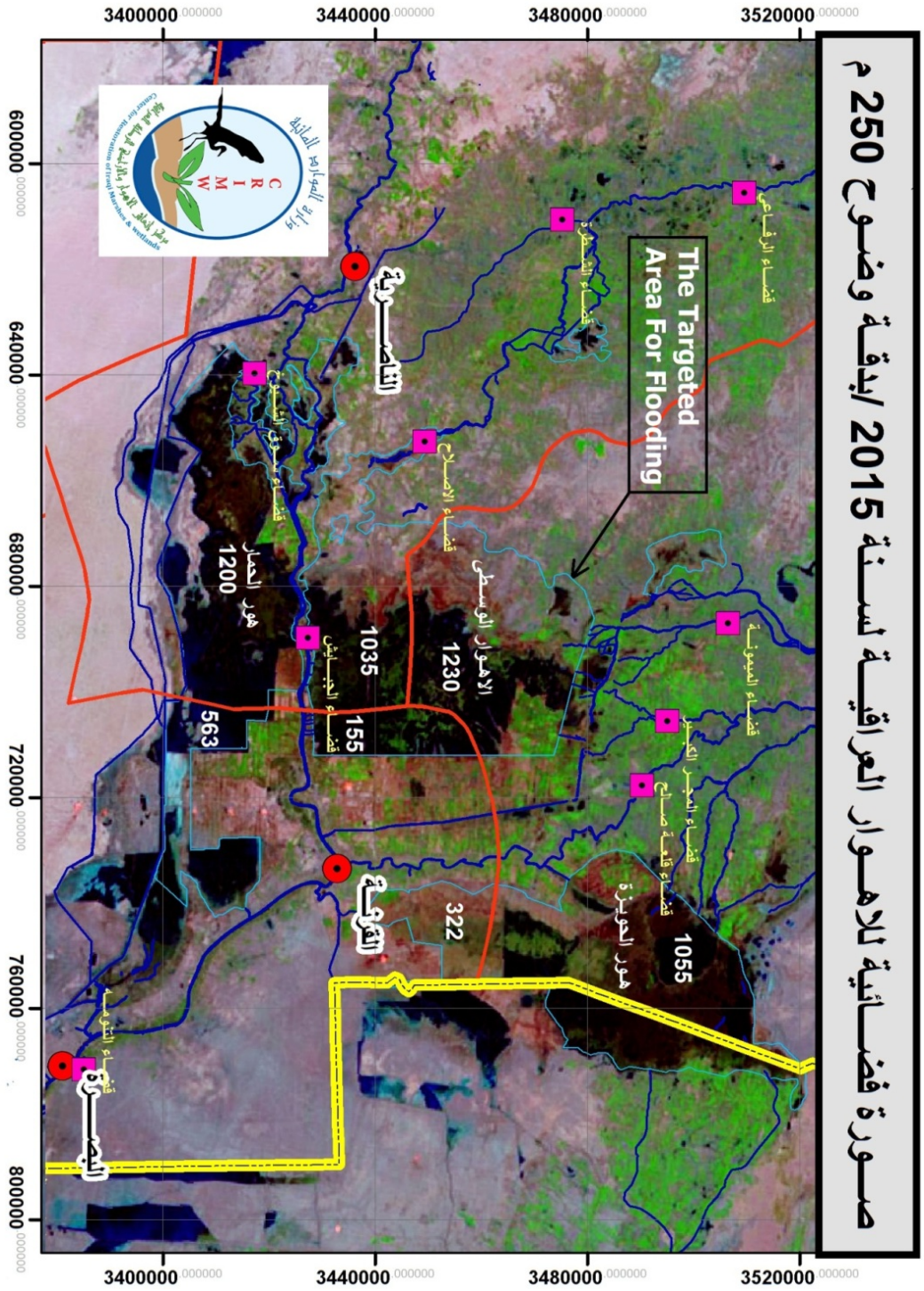
[1] The data provided by the Iraqi Organization for Conservation of Nature (IOCN)

References consulted:

- Iraqi Ministry of Water Resources (April, 2014). Strategy for Water and Land Resources in Iraq. Draft final report. Rev. 000_20140416.
- Republic of Iraq and Japan International Cooperation Agency (March 2011). Study on Establishment of Basic Oil Spill Response Plan.
- Formal letters and correspondences from the Ministry of Health and Environment, Ministry of Water Resources, Center for Restoration of the Iraqi Marshlands and Wetlands, and the Ministry of Agriculture
- The results of the recent monitoring surveys made by the Ministry of Health and Environment.
- Iraq Ministry of Environment (IMoE) (2014). *National Report on Biodiversity in Iraq.* Fifth national report to the Convention on Biological Diversity (CBD), March 2014. Available at: (http://www.cbd.int/doc/world/iq/iq-nr-05-en.pdf)

Annexes

Annex (1) - A map (produced by CRIM 2015) shows the marsh areas targeted for flooding with frequent amounts of water flows (the pale-blue line).



Annex (2) - Couple of pages from the Strategy for Water and Land Resources in Iraq (SWILRI): The second page demonstrates the importance of the marshes, while the third discusses the solutions of feeding Hammar proposed component by the water of the 'Main Outfall Drain'.

3.4.4 The Mesopotamian Marshlands

3.4.4.1 Facts and Needs

Iraq's marshes are located in southern part of the Mesopotamian basin, in the vast floodplain wetlands created by the Tigris-Euphrates river systems. Historically, the marshlands were the largest wetland ecosystem in Western Eurasia, covering over 20,000 km^2. The marshes are a unique aquatic landscape in the desert, supporting the traditions, values, and livelihoods of the inhabitants whose ancestors have lived in the area for thousands of years and whose culture is considered the cradle of Western Civilization and providing a habitat for important populations of wildlife, including several endemic and endangered species. The marshlands encompass three of the largest cities of southern Iraq, Nasiriyah to the west, Ammara to the northeast, and Basrah to the south and span three governorates: Basrah, Thi-Qar, and Missan. Three distinct marsh areas are found in the south: Haweizeh Marsh; Central Marsh, which formally includes Abu Zirig Marsh; and Hammar Marsh. Land use within and adjacent to the marsh areas include villages and towns, agricultural areas, and oil fields. A schematic of the marshes is shown below.

Figure 3-66: Schematic of the Mesopotamian Marshes of Iraq

Restoration of the Marshes

The 2006 *New Eden Master Plan* prepared for the Ministry of Water Resources, Ministry of Environment, and Ministry of Municipalities and Public Works proposed a state-of-the-art water allocation and management strategy for the restoration of the marshes. This plan was formulated with the aid of several sophisticated computer models, which helped in the evaluation of topography, hydrology, hydraulics, water quality, socioeconomics, and water distribution.

111

would allow each of these cities to reuse the drainage outflows of the nearest irrigation project.

Drainage Water Supply for Environmental Purposes

Net from the re-use of water for oil field re-injection (0.96 BCM/y) and the proposed green belts program (0.25 BCM/y), the MOD will still provide an additional 2 BCM annually from the drainage of irrigation projects. It is proposed that this volume of water is diverted into Hammar Marsh to help augment the later extension of the largest among the three marshes of southern Iraq. The extra volume of water would be routed into the marshes via a recently dug channel located in the southwest part near Kharmeshiah. Excess water would then be routed back into the MOD via a newly built channel located near the existing ARAMCO Bridge in the south-center part.

More information on the restoration options provided for Hammar Marshes are given in the environmental section of this *Strategy* document.

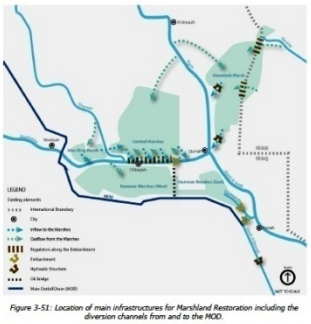
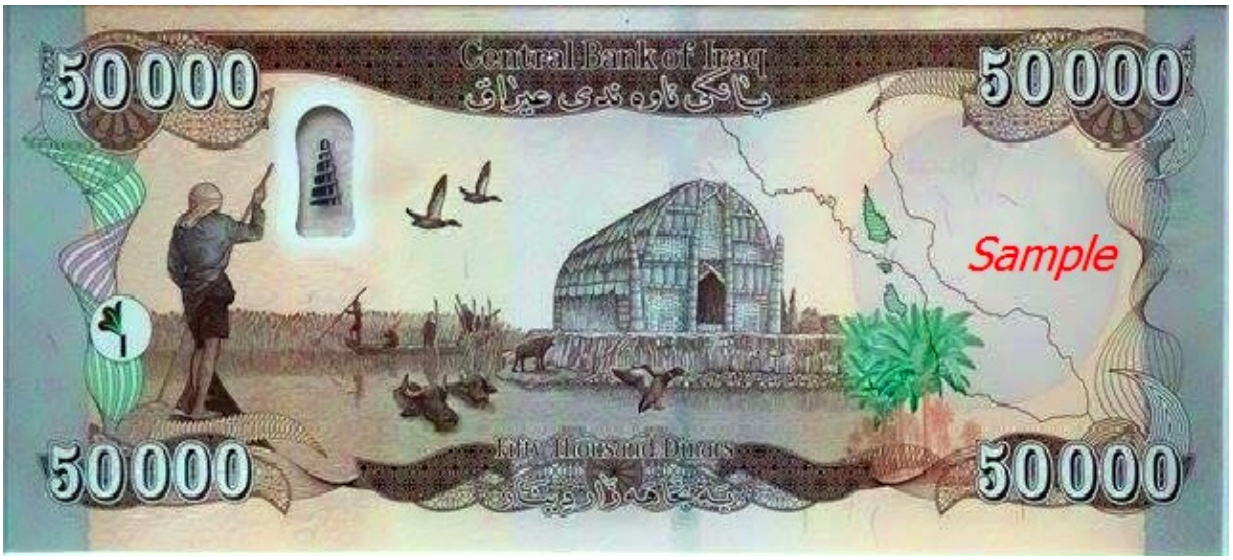


Figure 3-51: Location of main infrastructures for Marshland Restoration including the diversion channels from and to the MOD.

This *Strategy* also suggests re-using irrigation drainage water along the Shatt Al Arab River. The proposed East Tigris Drain will drain water from the proposed Amarah and Shatt Al Arab Irrigation Projects. An existing water control structure on the Swaib River provides ways to divert water from the Hawizeh Marshes into the new drain at a constant rate of 20 m^3/s. The drain, which at full capacity will carry over 80 m^3/s, will discharge into the Shatt Al Arab River near Abu Flus, at the border of Iran and Iraq. The salinity of the

90

Annex (3) - Some recent governmental products illustrates the interest of the government in the marshes of Southern Iraq - a note of 50,000 ID and post-stamps.



Annex (4) - Oil-spill response-plan adopted by the Iraqi Government - an example on securing better protection for the biodiversity and natural resources in the marshes.

CONFIDENTIAL

Republic of Iraq

Study on "Establishment of Basic Oil Spill Response Plan"

Special Assistance for Project Implementation
for
"Crude Oil Export Facility Reconstruction Project"
(L/A No. IQ-P7)

Final Report

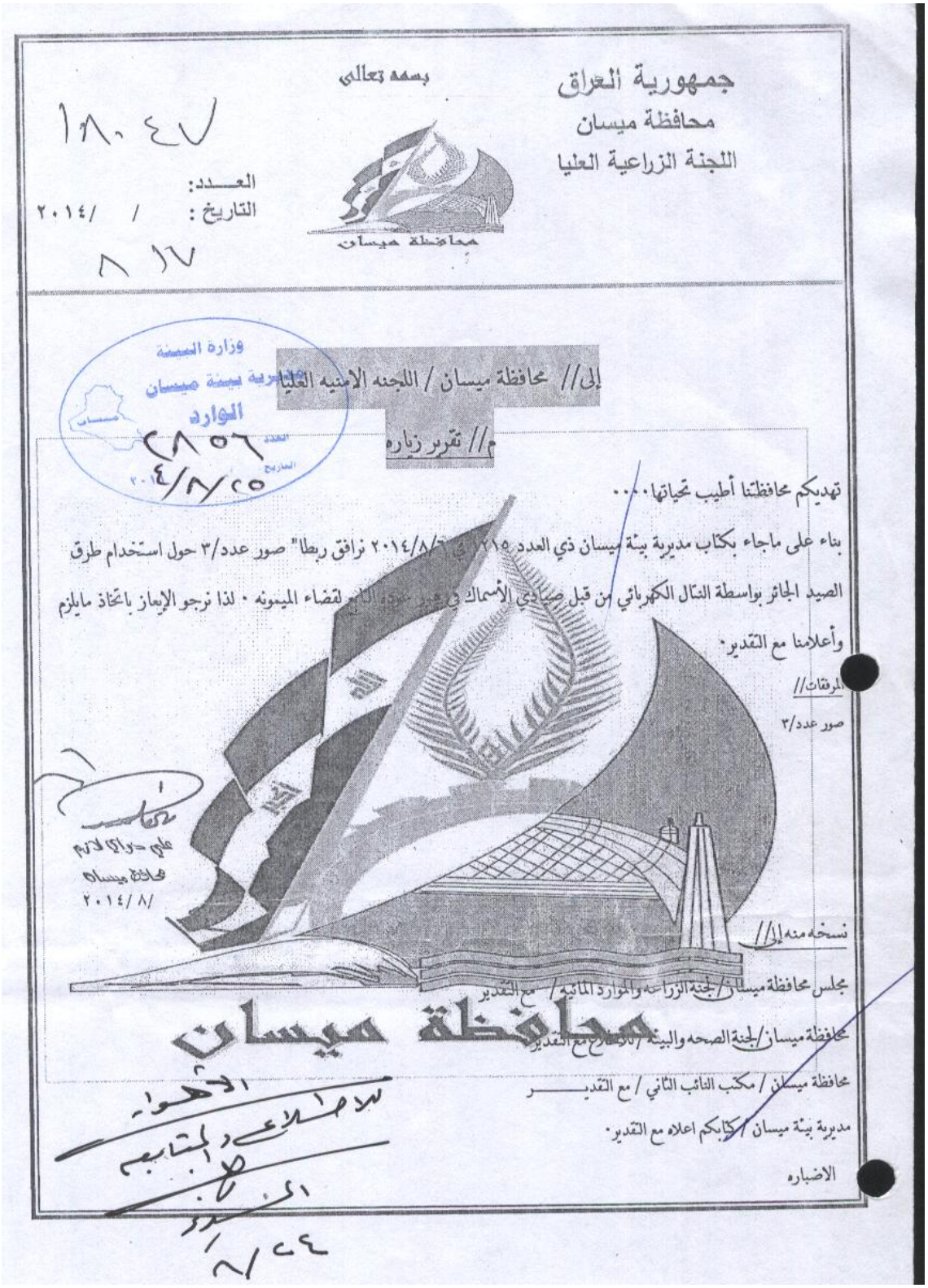
March 2011

JAPAN INTERNATIONAL COOPERATION AGENCY

Japan Oil Engineering Co., Ltd

MEE

Annex (5) - Communication letter issued by the 'Higher Council for Agriculture' in Missan District focusing on banning the elctrofishing - example on the on-ground conservation measures led by the local governments around the Marshes areas.



جمهورية العراق
محافظة ميسان
اللجنة الزراعية العليا

بسمه تعالى

١٨٠٤٧

العـــدد:
التاريخ : / /٢٠١٤

٨١٧

محافظة ميسان

وزارة الصحة
مديرية بيئة ميسان
الوارد
العدد ٢٨٥٦
التاريخ ٢٠١٤/٨/٢٥

إلى// محافظة ميسان / اللجنه الامنيه العليا

م// تقرير زياره

تهديكم محافظتنا أطيب تحياتها ٠٠٠٠

بناء على ماجاء بكتاب مديرية بيئة ميسان ذي العدد ٢١٥ في ٢٠١٤/٨/٢ نرافق ربطا" صور عدد/٣ حول استخدام طرق الصيد الجائر بواسطة النتال الكهربائي من قبل صيادي الأسماك في غير موده التي لقضاء الميمونه ٠ لذا نرجو الإيعاز باتخاذ مايلزم

وأعلامنا مع التقدير٠

المرفقات//
صور عدد/٣

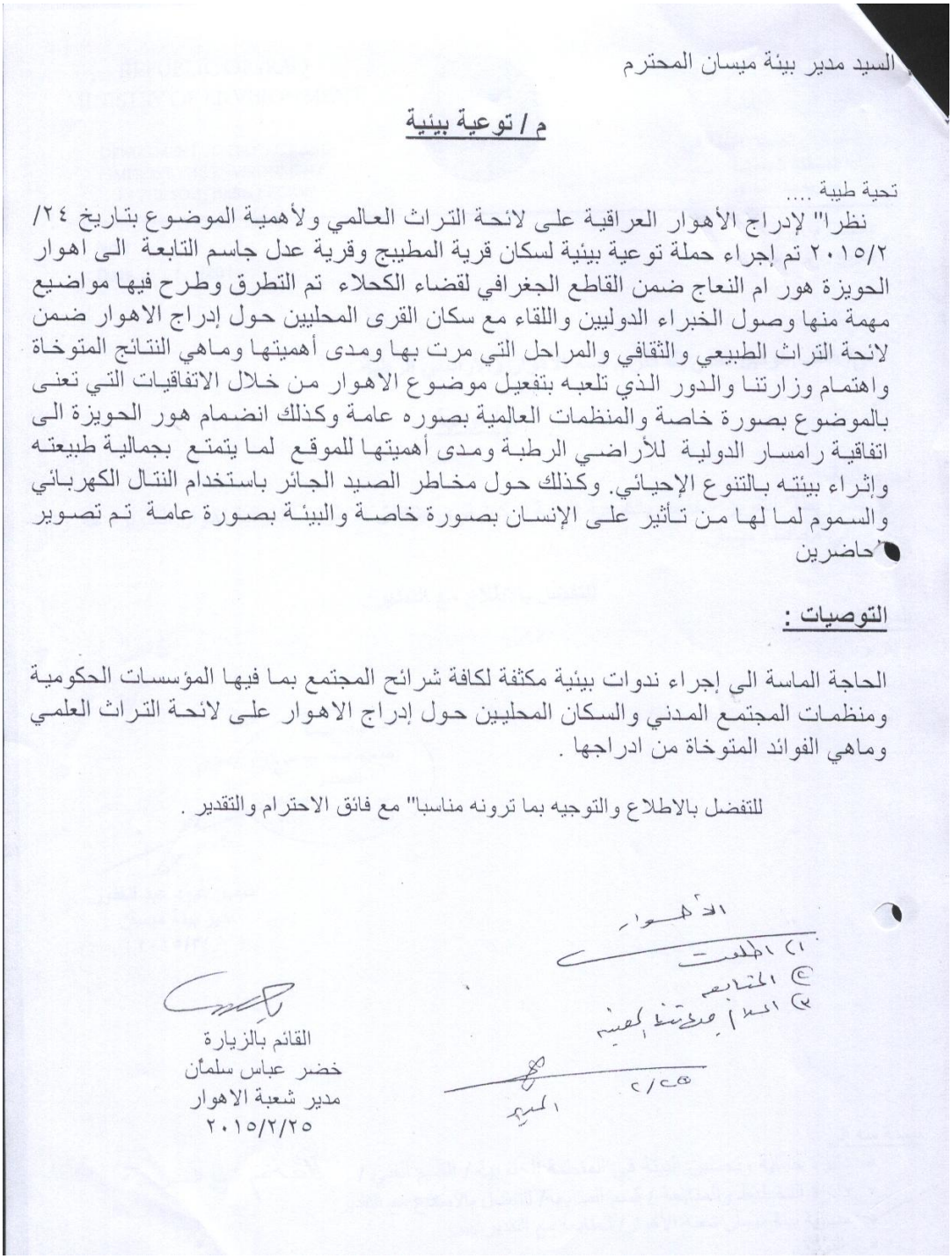
علي حراك لازم
محافظ ميسان
٢٠١٤/٨/

نسخه منه إلى//
مجلس محافظة ميسان / لجنة الزراعه والموارد المائيه / مع التقدير
محافظة ميسان / لجنة الصحه والبيئة / للاطلاع مع التقدير
محافظة ميسان / مكتب النائب الثاني / مع التقدير
مديرية بيئة ميسان / كتابكم اعلاه مع التقدير٠

الاضباره

محافظة ميسان

Annex (6) - Example for the on-ground management measurements (awareness campaign about the nomination of the marshes as WHS).



السيد مدير بيئة ميسان المحترم

م / توعية بيئية

تحية طيبة ....

نظرا" لإدراج الأهوار العراقية على لائحة التراث العالمي ولأهمية الموضوع بتاريخ ٢٤/ ٢٠١٥/٢ تم إجراء حملة توعية بيئية لسكان قرية المطيبج وقرية عدل جاسم التابعة الى اهوار الحويزة هور ام النعاج ضمن القاطع الجغرافي لقضاء الكحلاء تم التطرق وطرح فيها مواضيع مهمة منها وصول الخبراء الدوليين واللقاء مع سكان القرى المحليين حول إدراج الاهوار ضمن لائحة التراث الطبيعي والثقافي والمراحل التي مرت بها ومدى أهميتها وماهي النتائج المتوخاة واهتمام وزارتنا والدور الذي تلعبه بتفعيل موضوع الاهوار من خلال الاتفاقيات التي تعنى بالموضوع بصورة خاصة والمنظمات العالمية بصوره عامة وكذلك انضمام هور الحويزة الى اتفاقية رامسار الدولية للأراضي الرطبة ومدى أهميتها للموقع لما يتمتع بجمالية طبيعته وإثراء بيئته بالتنوع الإحيائي. وكذلك حول مخاطر الصيد الجائر باستخدام النتال الكهربائي والسموم لما لها من تأثير على الإنسان بصورة خاصة والبيئة بصورة عامة تم تصوير الحاضرين

التوصيات :

الحاجة الماسة الى إجراء ندوات بيئية مكثفة لكافة شرائح المجتمع بما فيها المؤسسات الحكومية ومنظمات المجتمع المدني والسكان المحليين حول إدراج الاهوار على لائحة التراث العلمي وماهي الفوائد المتوخاة من ادراجها .

للتفضل بالاطلاع والتوجيه بما ترونه مناسبا" مع فائق الاحترام والتقدير .

القائم بالزيارة
خضر عباس سلمان
مدير شعبة الاهوار
٢٠١٥/٢/٢٥

Annex (7) - Example for the on-ground management measurements (reed-cutting management) issued by the Local Agricultural HQ in Maissan.

بسم الله الرحمن الرحيم
جمهورية العراق

وزارة الزراعة
مديرية زراعة ميسان
قسم خدمات الثروة الحيوانية
العدد: ١٠٦٨٢
التاريخ ٢٠١٤/٦/١٧

(معو الأمـــية..الاستثمار الأكيد لغد أفضل)

إلـــى/ الشعب الزراعية كافة
م/ القطع الجائر للقصب

السلام عليكم ..

دعما لمشروع ((الإدارة الطبيعية والثقافية)) للاهوار الجنوبية بهدف انجاح ملف ترشيحها وادراجها على قائمة التراث العالمي والذي تم تقديم ملفها الى منظمة اليونسكو في شهر آذار ٢٠١٤ بموجب كتاب وزارة البيئة ذي العدد ١٠٢٧ في ٢٠١٤/٤/١٦ المبلغ الينا بكتاب محافظة ميسان / اللجنة الزراعية العليا المرقم ١٢١١٩ في ٢٠١٤/٥/٢١ المعطوف على كتاب مديرية بيئة ميسان ذي العدد ٧٨٨ في ٢٠١٤/٥/١٤ وذلك بمنع استخدام ماكنات قص القصب الميكانيكية التي تحمل على الظهر والتي تعتبر من المهددات والسلبيات المرفوضة والمؤثرة على سلامة الموقع استنادا الى شروط تحقيق السلامة والحفاظ على القيمة العالمية الإنشائية للموقع(ouv) للتفضل بالاطلاع والتنسيق مع الوحدات الإدارية لمنع استخدام هذه الآلات والإبقاء على استخدام طرق القص التقليدية فقط حفاظا على بيئة الاهوار وانجاح ملف الترشيح ... مع التقدير..

وزارة البيئة
مديرية بيئة ميسان
الوارد
٢٠١٤/٦/١٢

وزارة الزراعة
مديرية زراعة ميسان
الصادرة

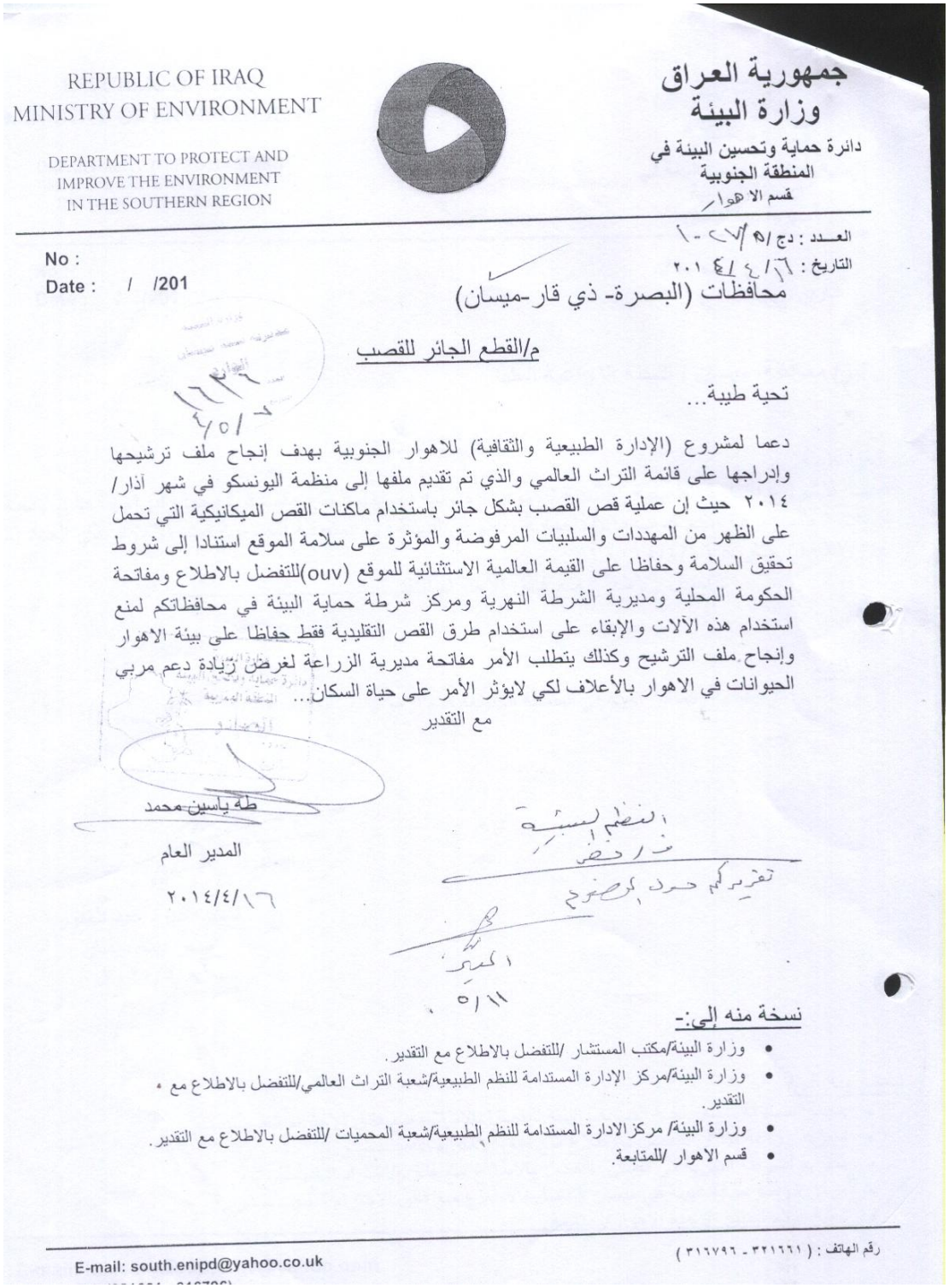
رئيس مهندسين زراعيين أقدم
طارق كاظم مايع
مدير الزراعة

ماجد جمعة عبد الحسين

نسخة منة الى:.

- مجلس محافظة ميسان / لجنة الزراعة والموارد المائية / يرجى التفضل بالعلم والاطلاع ..مع التقدير...
- محافظة ميسان / اللجنة الامنية العليا / يرجى التفضل بالعلم والاطلاع ... مع التقدير..
- محافظة ميسان / اللجنة الزراعية العليا / كتابكم اعلاه يرجى التفضل بالاطلاع .. مع التقدير...
- مديرية بيئة محافظة ميسان /كتابكم اعلاه يرجى التفضل بالاطلاع ... مع التقدير...
- ذاتية القسم
- العامة

Annex (8) - Example for the on-ground management measurements (reed-cutting management) issued by the Local Environment HQ in Basra.



REPUBLIC OF IRAQ
MINISTRY OF ENVIRONMENT

DEPARTMENT TO PROTECT AND
IMPROVE THE ENVIRONMENT
IN THE SOUTHERN REGION

جمهورية العراق
وزارة البيئة
دائرة حماية وتحسين البيئة في
المنطقة الجنوبية
قسم الاهوار

العـدد : دج /٥/ ١٠٧٠
التاريخ : ١٦/ ٤/ ٢٠١٤

No :
Date : / /201

محافظات (البصرة- ذي قار-ميسان)

م/القطع الجائر للقصب

تحية طيبة...

دعما لمشروع (الإدارة الطبيعية والثقافية) للاهوار الجنوبية بهدف إنجاح ملف ترشيحها وإدراجها على قائمة التراث العالمي والذي تم تقديم ملفها إلى منظمة اليونسكو في شهر آذار/ ٢٠١٤ حيث إن عملية قص القصب بشكل جائر باستخدام ماكنات القص الميكانيكية التي تحمل على الظهر من المهددات والسلبيات المرفوضة والمؤثرة على سلامة الموقع استنادا إلى شروط تحقيق السلامة وحفاظا على القيمة العالمية الاستثنائية للموقع (ouv)للتفضل بالاطلاع ومفاتحة الحكومة المحلية ومديرية الشرطة النهرية ومركز شرطة حماية البيئة في محافظاتكم لمنع استخدام هذه الآلات والإبقاء على استخدام طرق القص التقليدية فقط حفاظا على بيئة الاهوار وإنجاح ملف الترشيح وكذلك يتطلب الأمر مفاتحة مديرية الزراعة لغرض زيادة دعم مربي الحيوانات في الاهوار بالأعلاف لكي لايؤثر الأمر على حياة السكان...

مع التقدير

طه ياسين محمد

المدير العام

٢٠١٤/٤/١٦

نسخة منه إلى:-

- وزارة البيئة/مكتب المستشار /للتفضل بالاطلاع مع التقدير.
- وزارة البيئة/مركز الإدارة المستدامة للنظم الطبيعية/شعبة التراث العالمي/للتفضل بالاطلاع مع التقدير.
- وزارة البيئة/ مركزالادارة المستدامة للنظم الطبيعية/شعبة المحميات /للتفضل بالاطلاع مع التقدير.
- قسم الاهوار /للمتابعة.

E-mail: south.enipd@yahoo.co.uk

رقم الهاتف : (٣٢١٦٦١ - ٣١٦٧٩٦)

Annex (9) - Example for the on-ground management measurements (communication with the Borders Police about nomination the marshes as WHS).

REPUBLIC OF IRAQ
MINISTRY OF ENVIRONMENT

DEPARTMENT TO PROTECT AND
IMPROVE THE ENVIRONMENT
IN THE SOUTHERN REGION

جمهورية العراق
وزارة البيئة
دائرة حماية و تحسين البيئة في
المنطقة الجنوبية
مديرية بيئة ميسان

No :
Date : / /201

العـدد : م . ي / ٢٠٧١
التاريخ : ٢ /١٢/ ٢٠١٤

إلى/ قيادة حرس حدود المنطقة الرابعة

م / تسهيل مهمة

تحية طيبة ....
نظرا" لادراج الاهوار العراقية على لائحة التراث العالمي ولاهمية الموضوع يرجى الإيعاز إلى اللواء التاسع / الفوج الرابع لتسهيل مهمة فريقنا الحقلي الخاص في مناطق اهوار ميسان لدائرتنا وبرفقة الأجهزة الحقلية والزوارق والسيارات التابعة لنا والمذكورة تفاصيلها في أعلاه شاكرين تعاونكم معنا خدمتا لعراقنا الحبيب
مع فائق الاحترام والتقدير.

أسماء الفريق الحقلي :

١. خضر عباس سلمان	مدير شعبة الاهوار
٢. باسم محمد حبين	مدير شعبة النظم البيئية الطبيعية
٣. ثائر كريم حسان	مدير وحدة التنوع الاحيائي
٤. فالح كاظم حاتم	سائق العجلة المرقمة (٥٣٣٧٨ فحص حكومي) نوع بيك اب شوفرليت
٥. محمد عبدالحسين حمد	سائق العجلة المرقمة (٤٧٠٠٦٢ بغداد فحص) نوع بيك اب ميتسوبيشي
٦. حسن جاسم محمد	سائق العجلة المرقمة (٧٣٦٠٢ حكومية) نوع بيك اب تويوتا
٧. خالد صاحب هاشم	سائق العجلة المرقمة (٥٥١٠٥ فحص حكومي) نوع مايكروباص ميتسوبيشي
٨. محمد راضي اسماعيل	سائق العجلة المرقمة(٤٥٧٣٩٢ فحص حكومي) نوع بيك اب تويوتا
٩. مؤيد عبد الكريم زورة	سائق العجلة المرقمة (١٢١٨٨ ميسان اجرة) نوع باص ستاركس
١٠. لؤي جبار رشم	سائق الزورق المرقم ١٣ بصرة
١١. حيدر كريم جبار	سائق الزورق المرقم ١٢ بصرة

وزارة البيئة
مديرية بيئة ميسان
الصادر
العدد
التاريخ

سمير عبود عبد الغفور
مدير بيئة ميسان
٢١٠٤/١٢/

نسخة منه إلى/
- شعبة الاهوار / للمتابعة .
- التوثيق .

E-mail: missan_southernv@yahoo.com

Annex (10) - Example for the on-ground management measurements (communication with the South Oil Company on coordinating the work in the marshes area).

REPUBLIC OF IRAQ
MINISTRY OF ENVIRONMENT

DEPARTMENT TO PROTECT AND
IMPROVE THE ENVIRONMENT
IN THE SOUTHERN REGION

جمهورية العراق
وزارة البيئة
دائرة حماية و تحسين البيئة في
المنطقة الجنوبية
مديرية بيئة ميسان

No :
Date : / /201

العدد : م . ي / ٢٠٧٢
التاريخ : ٢ / ١٢ / ٢٠١٤

إلى/ شركة نفط ميسان

م / تسهيل مهمة

تحية طيبة ....
نظرا" لإدراج الاهوار العراقية على لائحة التراث العالمي يرجى الإيعاز إلى جميع حقول وأقسام دوائركم وفرقكم النفطية التابعة لشركتكم العاملة والقريبة من مواقع الاهوار والاراضي الرطبة في ميسان بتسهيل مهمة دخول فريقنا الحقلي العامل في الاهوار لدائرتنا وبرفقة الأجهزة الحقلية والزوارق والسيارات التابعة لنا والمذكورة تفاصيلها في أعلاه شاكرين تعاونكم معنا خدمتا لعراقنا الحبيب .

مع فائق الاحترام والتقدير

أسماء الفريق الحقلي :

١. خضر عباس سلمان	مدير شعبة الاهوار
٢. ثائر كريم حسان	مدير وحدة التنوع الاحيائي
٣. فالح كاظم حاتم	سائق العجلة المرقمة (٥٣٣٧٨ فحص حكومي) نوع بيك اب شوفرليت
٤. محمد عبدالحسين حمد	سائق العجلة المرقمة (٤٧٠٠٦٢ بغداد فحص) نوع بيك اب ميتسوبيشي
٥. حسن جاسم محمد	سائق العجلة المرقمة (٧٣٦٠٢ حكومية) نوع بيك اب تويوتا
٦. خالد صاحب هاشم	سائق العجلة المرقمة (٥٥١٠٥ فحص حكومي) نوع مايكروباص ميتسوبيشي
٧. محمد راضي اسماعيل	سائق العجلة المرقمة(٤٥٧٣٩٢ فحص حكومي) نوع بيك اب تويوتا
٨. مؤيد عبد الكريم زورة	سائق العجلة المرقمة (١٢١٨٨ ميسان اجرة) نوع باص ستاركس
٩. لؤي جبار رشم	سائق الزورق المرقم ١٣ بصرة
١٠. حيدر كريم جبار	سائق الزورق المرقم ١٢ بصرة

وزارة البيئة
مديرية بيئة ميسان
الصادر

سمير عبود عبد الغفور
مدير بيئة ميسان
٢٠ /١٢/ ٢٠١٤

سخة منه إلى/
- شعبة الاهوار / للمتابعة .
- التوثيق .

E-mail: missan_southernv@yahoo.com

Annex (11) - Example for the on-ground management measurements (communication about illegal hunting).

REPUBLIC OF IRAQ
MINISTRY OF ENVIRONMENT

DEPARTMENT TO PROTECT AND
IMPROVE THE ENVIRONMENT
IN THE SOUTHERN REGION

جمهورية العراق
وزارة البيئة
دائرة حماية وتحسين البيئة في
المنطقة الجنوبية
مديرية بيئة ميسان

No :
Date : / /201

العـــدد : م . ي / ٢٦٩
التاريخ : ١٥/ ٢/ ٢٠١٥

إلى/ دائرة حماية وتحسين البيئة في المنطقة الجنوبية / القسم الفني

م / الصيد الجائر

تحية طيبة ....

كتابكم ذي العدد دج/٣/١٩٥بتاريخ ٢٠١٥/١/١٨من خلال زيارتنا الحقلية لمناطق وقرى اهوار ميسان نود إعلامكم الأتي:

١. إجراء توعية بيئة لسكان مناطق الاهوار عامة وصيادي الأسماك المتواجدين داخل البرك والمسطحات المائية بصورة خاصة حول مخاطر الصيد بالنتال الكهربائي والسموم لما لها من تأثيرات سلبية على الإنسان بصورة عامة والبيئة بصورة خاصة بلاضافة إلى أهمية موضوع إدراج الاهوار على لائحة التراث العالمي المختلط وبجهود ذاتية .
٢. الرصد المستمر لحالات الصيد الجائر في مناطق الاهوار .
٣. من خلال دعوتنا من قبل المنظمات المحلية التي تهتم بشؤون الاهوار نقوم باستغلال تلك الدعوات بإلقاء محاضرة حول مخاطرالصيد الجائر بلاضافة إلى أهمية موضوع إدراج الاهوار على لائحة التراث العالمي المختلط وبحضور الحكومة المحلية والدوائر في المحافظة .
٤. جميع هذه الإجراءات موثقة في تقارير بكتب رسمية وإرسالها للجهات المعنية في المحافظة ومراجعنا في الوزارة .

للتفضل بالاطلاع مع التقدير .

المرفقات:

- تقرير زيارة بكتابنا المرقم ٨٨٢ بتاريخ ٢٠١٤/٥/٢٨
- تقرير زيارة بكتابنا المرقم ١٢١٥ بتاريخ ٢٠١٤/٨/٦مع الاجراءات المتخذة من قبل المحافظة بكتبهم المرقمه على التوالي ١٨٠٤٧ بتاريخ ٢٠١٤/٨/١٧ و١٠٤٨ بتاريخ ٢٠١٤/٨/٢٤ و١٢٠٥ بتاريخ ٢٠١٤/١٠/١ والمعطوف على كتاب قيادة شرطة ميسان مديرية الجنائية والحركات قسم الحركات ذي العدد ٥٨١٠٦ بتاريخ٢٠١٤/٩/٢٦ .
- تقرير زيارة بكتابنا المرقم ١٤٤٥ بتاريخ ٢٠١٤/٩/٤
- تقرير زيارة بكتابنا المرقم ١٦ بتاريخ ٢٠١٥/١/٤
- تقرير زيارة بكتابنا المرقم ٧٤ بتاريخ ٢٠١٥/١/١٨ مع الإجراءات المتخذة من قبل المحافظة بكتابهم المرقم ٨٧بتاريخ ٢٠١٥/١/١٩ .

وزارة البيئة
مديرية بيئة ميسان
الصادر
العدد
التاريخ
٢٠١٤

سمير عبود عبد الغفور
مدير بيئة ميسان
٢٠١٥/٢/ ١٥

نسخة منه إلى

- مكتب وكيل الوزارة الفني / قسم الأهوار والأراضي الرطبة/ للتفضل بالاطلاع مع التقدير .
- مديرية بيئة ميسان شعبة الأهوار / للمتابعة مع التقدير .
- التوثيق.

Annex (12) - Example for the on-ground management measurements (monitoring the socio-economy of the locals of the marshes).

REPUBLIC OF IRAQ
MINISTRY OF ENVIRONMENT

DEPARTMENT TO PROTECT AND
IMPROVE THE ENVIRONMENT
IN THE SOUTHERN REGION

جمهورية العراق
وزارة البيئة
دائرة حماية و تحسين البيئة في
المنطقة الجنوبية
مديرية بيئة ميسان

No :
Date : / /201

العـدد : م . ي /٢٧٢
التاريخ : ٢٢/٤/ ٢٠١٥

إلى/ مكتب الوكيل الفني المحترم / قسم مراقبة الأهوار والأراضي الرطبة

م / التقرير الفصلى للواقع الاجتماعي والاقتصادى لسكان الاهوار

تحية طيبة ....

كتابكم ذي العدد ٦٧في ٢٠١٥/٢/٥ نرفق لكم ربطا" التقرير الفصلي الأول للعام ٢٠١٥الخاص بالواقع الاجتماعي والاقتصادي لسكان القرى المحاذية لاهوار الحويزة هور ام النعاج لقرى(ابو خصاف والدبن وابو خنازير والحصيوة) للتفضل بالاطلاع مع التقدير

المرفقات
- **استمارات تقرير فصلي عدد (٢٤) نسخة**

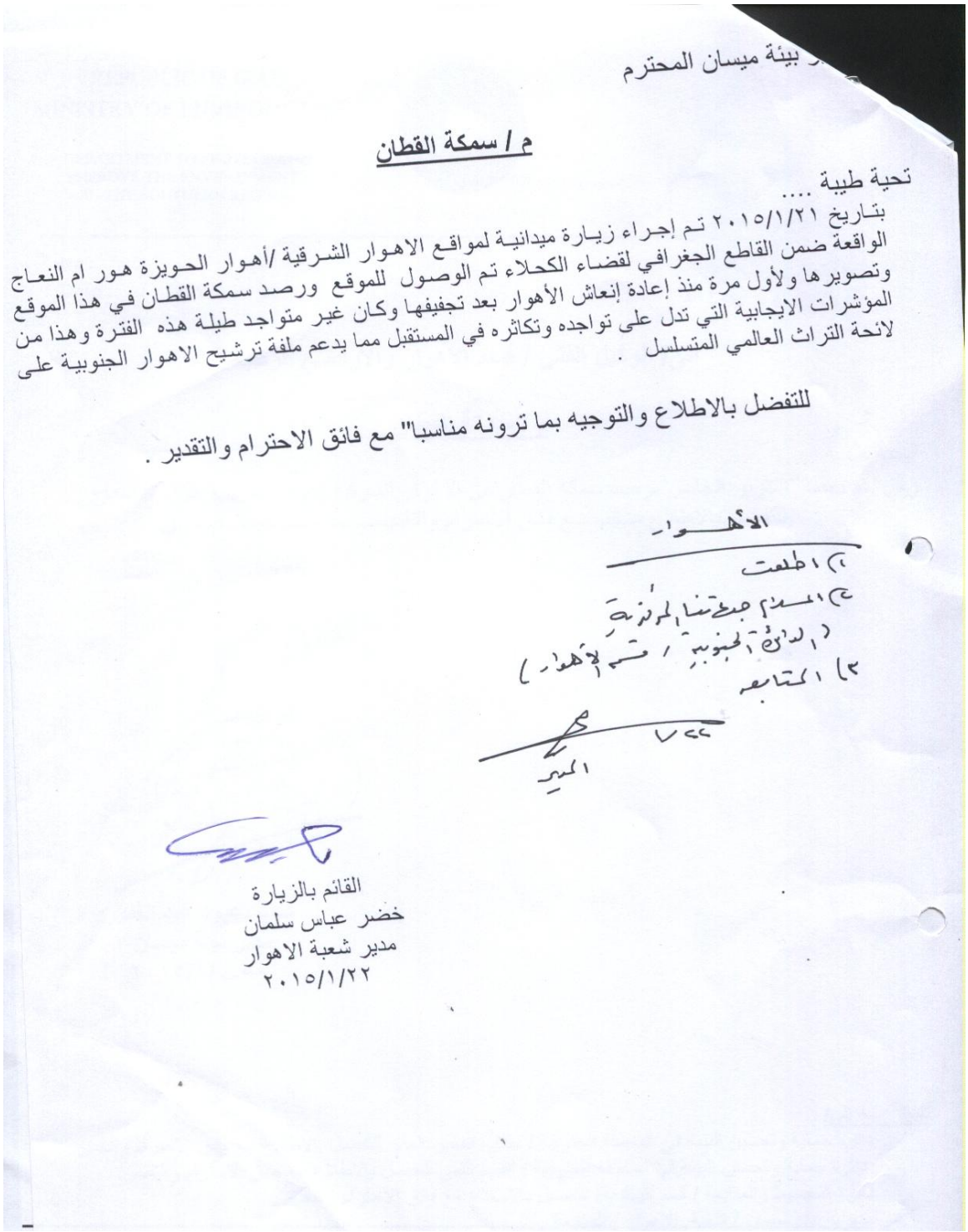
وزارة البيئة
مديرية بيئة ميسان
الصادر

سمير عبود عبد الغفور
مدير بيئة ميسان
٢٠١٥/٤/

نسخة منه إلى/
- دائرة حماية وتحسين البيئة في المنطقة الجنوبية القسم الفني/ كتابكم ذي العدد دج/٧٣٦/٣ في ٢٠١٥/٣/٢ للعلم مع التقدير.
- مديرية بيئة ميسان / شعبة الاهوار / للمتابعة .

E-mail: missan_southernv@yahoo.com

Annex (13) - Example for the on-ground management measurements (monitoring the biodiversity - finding rare indigenous fish species in the marshes).



ر بيئة ميسان المحترم

م / سمكة القطان

تحية طيبة ....

بتاريخ ٢٠١٥/١/٢١ تم إجراء زيارة ميدانية لمواقع الاهوار الشرقية /أهوار الحويزة هور ام النعاج الواقعة ضمن القاطع الجغرافي لقضاء الكحلاء تم الوصول للموقع ورصد سمكة القطان في هذا الموقع وتصويرها ولأول مرة منذ إعادة إنعاش الأهوار بعد تجفيفها وكان غير متواجد طيلة هذه الفترة وهذا من المؤشرات الايجابية التي تدل على تواجده وتكاثره في المستقبل مما يدعم ملفة ترشيح الاهوار الجنوبية على لائحة التراث العالمي المتسلسل .

للتفضل بالاطلاع والتوجيه بما ترونه مناسبا" مع فائق الاحترام والتقدير .

القائم بالزيارة
خضر عباس سلمان
مدير شعبة الاهوار
٢٠١٥/١/٢٢

PART III. Management Plans of the Cultural Component Parts

of
The Ahwar of Southern Iraq: Refuge of Biodiversity and Relict Landscape of the Mesopotamian Cities

Property Nominated by the Government of Iraq in January 2014 for Inscription on the World Heritage List

CONTENTS

ACRONYMS

AHD	Antiquity and Heritage Directorate
ARC-WH	Arab Regional Centre for World Heritage
CBD	Convention on Biological Diversity
CRIMW	Centre for the Restoration of the Iraqi Marshlands and Wetlands
GoI	Government of Iraq
IUCN	International Union for Conservation of Nature
MoA	Ministry of Agriculture
MoC	Ministry of Culture
MoE	Ministry of Environment
MoEd	Ministry of Education
MoF	Ministry of Finance
MoFA	Ministry of Foreign Affairs
MoH	Ministry of Health
MoHESR	Ministry of Higher Education and Scientific Research
MoI	Ministry of Interior
MoMPW	Ministry of Municipalities and Public Works
MoO	Ministry of Oil
MoP	Ministry of Planning
MoLSA	Ministry of Labour and Social Affairs
MoST	Ministry of Science and Technology
MoTA	Ministry of Tourism and Antiquities
MoU	Memorandum of Understanding
MoWR	Ministry of Water Resources
NCWH	National Committee for World Heritage
NGO	Non-Governmental Organization
OGWHC	Operational Guidelines for the Implementation of the World Heritage Convention (2013)
OUV	Outstanding Universal Value
ROWA	Regional Office for West Asia
SBAH	State Board of Antiquities and Heritage

SMT	Site Management Team
TTA	Team of Technical Advisers
UNEP	United Nations Environment Programme
UNEP-DTIE-IETC	UNEP Division of Technology, Industry and Economics – International Environmental Technology Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
WH	World Heritage
WWF	World Wide Fund for Nature

Chapter I. Issues Common to the Cultural Component Parts

of
The Ahwar of Southern Iraq: Refuge of Biodiversity and Relict Landscape of the Mesopotamian Cities

Property Nominated by the Government of Iraq in January 2014 for Inscription on the World Heritage List

CONTENTS

Section I. Overview of the Cultural Components and their Relations to the Ancient Marshlands

The three cultural components of the property comprise the **archaeological cities of Uruk and Ur**, once major political and economic centers of southern Mesopotamia, together with the **archaeological site of Tell Eridu**, a prominent cultic Centre that did not develop into a full-fledged metropolis. These Sumerian cities played an extraordinary role in the history of urbanization. Between the 4th and 3rd millennia BCE, they developed into some of the most significant urban centers of southern Mesopotamia and saw the origin of writing, monumental architecture, and complex technologies and societies evolve.

Until the 2nd millennium BCE, when the sea regressed towards the south, the marshy and moving landscape of the Euphrates and Tigris within the deltaic plain was the heartland where the cities of Uruk, Ur and Eridu flourished. Textual and archaeological evidences suggest that the exploitation of the marshlands had a critical impact on social institutions, economy and the development of cities in the region. Furthermore, the marshes were a major source of inspiration for Sumerian religion and literature. Eridu and Uruk were situated originally on the margins of freshwater marshes whereas Ur was located near the shores of the Arabian Gulf. Today, these three sites are well inland and surrounded by an arid landscape. However, traces of the ancient environment of marshlands and rivers, together with hydraulic works (canals, harbours, etc.), are still found in the topography and archaeological remains of the sites.

These remains offer a complete testimony to the growth and achievements of southern Mesopotamian urban centers and societies, and to their outstanding contribution to the history of the Ancient Near East and mankind as a whole. In particular, the great ziqqurats of Uruk, Ur and Eridu provide the most ancient and best documented examples of urban and religious architecture in southern Mesopotamia. Today, the mudbrick ruins of Uruk, Ur and Eridu dominate the arid but striking landscape of the desiccated plain. They stand as testimonies to the antiquity and achievements of southern Mesopotamian cultures, and the impact of the unstable deltaic landscape upon the rise and fall of these large urban centers.

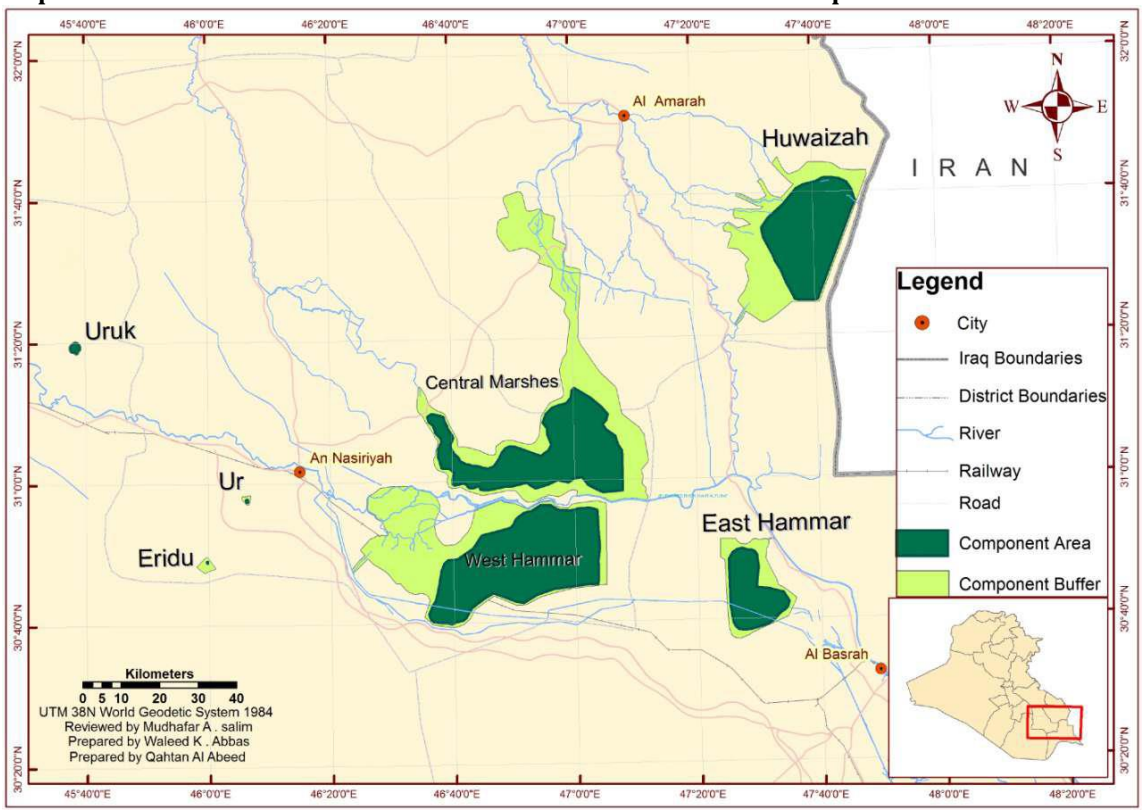
Table 1.1. Centre Point Coordinates of the Cultural Components

Component	Governorate	Coordinates of the central point
Uruk Archaeological City	Muthanna	N 31 19 27/E 45 38 14
Ur Archaeological City	Dhi Qar	N 30 57 47/E 46 6 11
Tell Eridu Archaeological Site	Dhi Qar	N 30 49 01/E 45 59 45

Table 1.2. Size of the Cultural Components and Their Associated Buffer Zones

Component	Area of component (ha)	Area of buffer zone (ha)	Governorate
Uruk Archaeological City	541	292	Muthanna
Ur Archaeological City	71	317	Dhi Qar
Tell Eridu Archaeological Site	33	1,069	Dhi Qar

Map 1.1. Boundaries and Buffer Zones of the Cultural and Natural Components



Uruk Archaeological City (modern Warka) lies about 80 km northwest of ancient Ur and 30 km east of modern Samawah, the administrative Centre of the Governorate of Muthanna. Uruk was originally situated southwest of the ancient Euphrates riverbed, now dry, and on the edges of a marsh. It is the place where fundamental features of Mesopotamian urban civilization, including writing and the first literary texts, developed and was the forerunner of the urbanization process in southern Mesopotamia. It was a top political, cultural and religious Centre in the historical periods, but its critical influence on Mesopotamian and world history dates back to the 4th millennium BCE, the so called Uruk period (c. 4000-3000). The archaeological site consists of a large area in the centre of the city where different sanctuaries are situated, including two ziqqurats, and several living quarters inside the city; they are separated from each other by ancient canals. Additional areas inside the city were used as gardens, fields and production areas.

The boundaries and buffer zone of Uruk Archaeological City as a component of the proposed World Heritage (WH) property follow the official boundaries and buffer zone of the archaeological site and encompass all the archaeological remains. The component covers an area of 530 ha within the ancient city walls. The buffer zone covers an additional c. 292 ha. The maximum extent of the component is 3 km north-south and 2.5 km east-west.

Ur Archaeological City (modern Tell Al Muqayyar) is situated 17 km south-west of Nasiriyah, the administrative centre of the Dhi Qar Governorate, and 200 km north of Basrah and the Arabian Gulf. Ur emerged as a key player in the political life of the southern city-state system during the period of the First Ur Dynasty (2670 BCE), when it became one of the most important and wealthy Sumerian cities. It remained significantly smaller than Uruk but profited from its location as the city closest to the entrance of the Arabian Gulf and developed into the most important Sumerian port on the Gulf, which extended much further inland than it does today. The archaeological site is surrounded by a mud brick wall of oval shape and contains a ziqqurat, several other temples, palaces, residential quarters, and a burial site including the so-called royal tombs.
The boundaries of the Ur Archaeological City as a component of the proposed WH property follow the lower topographical contours of the archaeological mound (Tell Al Muqayyar), which encompasses the most important archaeological remains of the Sumerian period. The buffer zone coincides with the boundaries of the official archaeological site, which follow the ancient city walls. In addition to public buildings, the buffer zone includes two of the three identified harbours of Ur, one on the northern corner of the city wall, and the second along the western wall, none of them excavated yet. However the main harbour is situated outside the buffer zone of the property component. It has yet to be excavated and the boundaries of the component might be extended at a later stage to include it. The component covers 71 ha, and its buffer zone covers 317 ha.

Tell Eridu Archaeological Site (modern name Tell Abu Shahrain) is located 40 km south-west of Nasiriyah, the administrative centre of Dhi Qar Governorate, and 12 km to the southwest of Ur. The settlement developed during the Ubaid period (c. 5000 BCE) in a unique environment, that of the transitional zone between sea and land with its shifting watercourses, small islands, and deep reed thickets.

The settlement was built upon a hillock within a depression about 6 m below the level of the surrounding land, which allowed the subterranean waters to collect together. Eridu was developed by the Ubaid culture as a major cultic Centre, and the Mesopotamian tradition considered it the oldest city in the world.

Tell Eridu is a typical cone-shaped archaeological mound (tell), half a kilometre in diameter, rising some 25 m above the plain. The boundaries of Tell Eridu as a component of the proposed World Heritage property follow the lower topographic contours of the Tell. Six smaller tells are dotted around Tell Eridu. Five of these smaller mounds and the depression where the original lagoon surrounding Tell Eridu formed are included in the buffer zone of the property, which coincides with the official boundary of the archaeological site and is marked on the ground by a sand berm. The component covers 33 ha, and the buffer zone c. 1069 ha.

As regards legal designations and boundaries, Uruk, Ur and Eridu are registered in the Official Gazette n° 1465 of 17 October 1935 as archaeological sites and protected under article 7 of the Iraqi Law of Antiquities and Heritage n°55 of 2002. Registration in the Official Gazette includes the definition of official boundaries and buffer zones.

In terms of **land tenure**, the three components are owned by the Iraqi Treasury and under the legal responsibility of the State Board of Antiquities and Heritage (SBAH). None of the components is inhabited save for the site guards and their families at Uruk and Ur.

Section II. Current Legal and Planning Framework

2.1. Legal and Regulatory Framework

The national legal and regulatory framework is reviewed below in view of:

- Assessing the overall enabling environment for the protection, conservation, management, presentation, stakeholder participation and sustainability of the values of the cultural components;
- Determining to what level the obligations to the World Heritage Convention are met and protection is enforced at the country level under existing legislations and regulations.

The review was conducted over legal and regulatory tools with a direct or indirect impact on the protection of cultural heritage, and specifically what is referred to under the Iraqi law as "antiquities and heritage." These tools are:

- The Constitution of Iraq adopted on the 15th of October 2005;
- Law no. (45) of 2000, Organizing the Antiquities and Heritage Authority;
- Law no (55) of 2002, The Antiquity and Heritage Law;
- Law no. (13) of 2006, The Investment Law;
- Law no. (13) of 2012, The Ministry of Tourism and Antiquity Law;
- Law no. (19) of 2009, The Ministry of Planning Law;
- Law no. (37) of 2008, The Ministry of Environment Law;
- Law no. (27) of 2009, The Law for the Protection and Enhancement of the Environment;
- Law no. (2) of 2014, Regulations for Natural Reserves;
- Governmental decrees and guidance;
- Draft Mandate of the National Committee for World Heritage.

These tools were reviewed in so far as they include specific provisions with regards to the following major themes:

- Legislative, regulatory and contractual measures for protection;
- Boundaries for effective protection and buffer zones;
- Adequate management systems for maintaining and enhancing the values of the cultural components;
- Sustainable use of the site;
- Capacity building and research;

- Awareness raising and education;
- Promotion of cultural heritage.

These themes are considered primary areas requiring a proactive legislative framework to make sure that the values of the cultural components are protected and sustained for the benefit of future generations.

Table 1.3. Analysis of the Legal and Regulatory Framework

Criteria for Evaluation	Analysis
Legal, regulatory and contractual measures for protection	
Legal bases	- The Iraqi Constitution refers to "Antiquities, archaeological sites, cultural buildings, manuscripts and coins" as being "national treasures" under the "jurisdiction of the federal authorities" (Section 4, Article 113). - The law governing the protection, conservation and management of antiquities and heritage is the Antiquity and Heritage Law" (no. 55 of 2002); its objectives are mainly to conserve the antiquities and heritage, the national treasures of Iraq, and to uncover antiquities and heritage making them known to citizens and to the international community, thereby highlighting the singular role Iraqi culture has played in the development of human civilization (Article 1). - Furthermore, the objectives of the Antiquity and Heritage Law shall be achieved through the designation of sites, undertaking scientific excavations, the maintenance of antiquities as well as heritage and historic sites, the establishment of museums to provide access to antiquities and heritage, the production of models and heritage materials, the undertaking of studies and research, the organization of conferences and talks that showcase the antiquities of Iraq and its cultural heritage, featuring Iraqi Antiquity and heritage materials in foreign museums, forming archaeologists and heritage specialists and developing their capabilities through training courses, missions abroad and fellowships, and establishing survey teams in charge of the national survey and inventory of antiquities, heritage and buildings in Iraq (Article 2). - By Antiquities, it is understood: the "movable and fixed properties or assets, not less than two hundred (200) years of age, that were built, manufactured, sculpted, produced, written, sketched, or photographed by man. The term, antiquities, also means all human and animal skeletons as well as plant fossils (Article 4/7). - By Cultural Heritage Materials, it is understood: movable and fixed property or assets that are no less than two hundred (200) years of age and are of historic, patriotic, national, religious, or artistic value and that are designated to have such value through a decree issued by the Minister (Article 4/7). - By Historic Site, it is understood: a site, regardless of its age, that was the scene of a significant historic event or of an event of historic significance whatever its age may be (Article 4/8). - The Law for the Protection and Enhancement of the Environment (Law no. 27 of 2009) refers as well to cultural heritage as

	being a component of the environment warranting protection and enhancement. In this respect, Article 1 of the Law refers to the objective of protecting and enhancing the environment as well as the conservation of natural assets, biodiversity and the cultural and natural heritage. - In the definition of 'environment', the Law refers to all environmental elements where living creatures/beings live, and the effects/influences resulting from man's economic, social and cultural activities within.
Ownership of 'Antiquities'	- The Iraqi Constitution refers to "Antiquities, archaeological sites, cultural buildings, manuscripts and coins" as being "national treasures" falling under the "jurisdiction of the federal authorities" (Section 4, Article 113). These "national treasures shall be managed in cooperation with the regions and governorates, and this shall be regulated by law". - According to the Antiquity and Heritage Law" (no. 55 of 2002), the "antiquities and heritage of the Republic of Iraq are considered to be among the most important national treasures" (Article 1); they are protected by the law and shall be conserved. - According to Article 7 of the Antiquity and Heritage Law (no. 55 of 2002), all historic and archaeological sites, including archaeological mounds, owned by public entities, shall be registered in the name of the Ministry of Finance and will be subjected to the authority of the Antiquity and Heritage Authority.
Adequate long-term legal, regulatory, institutional and/or traditional protection and management to ensure safeguarding (OGWHC, Sec. 97)	- According to Article 8 of the Antiquity and Heritage Law (no. 55 of 2002), the Antiquity Authority, in coordination with the relevant government agencies, shall conduct a comprehensive archaeological survey of archaeological and cultural sites and buildings in Iraq, with the aim to establish their locations and dimensions on topographical maps with fixed coordinates. The Authority shall also indicate the nature of these properties, whether archaeological properties or buildings, as well as inform the land register in Baghdad and the relevant municipalities of their attributes. - In the case of the fortuitous discovery of movable or immovable antiquities, it is necessary to notify an official entity within 24 hours from this discovery. The concerned entity would then take charge of informing the Antiquity Authority of such a discovery (Article 12). - Occupants or tenants of properties which incorporate immovable archaeological or heritage sites shall allow the Antiquity Authority to enter the property in order to access those sites with the aim to examine them, document them as well as excavate, maintain and conserve them (Article 13/1).
Legal and regulatory measures at national and local levels should assure the survival of the property and its protection against development and change	- According to Article 9/1 of the Antiquity and Heritage Law (no. 55 of 2002), when state agencies and social sector agencies seize property located inside or outside the boundaries of the base maps of urban areas, or when they partition or divide such property, they shall refrain from exploiting archaeological sites and buildings or from making distributions (or allocations) of those sites. The relevant state agencies shall put in place appropriate buffer zones for such sites, in coordination with the Antiquity Authority. - Agencies engaged in the distribution of reclaimed agricultural land where antiquities are located shall obtain the written

that might negatively impact the OUV and its integrity and/or authenticity; oversight rights over planning and public works (OGWHC, Sec. 98)	consent of the Antiquity Authority before leasing or selling such land (Article 9/2). - Agencies in charge of planning industrial, agricultural or housing public projects as well as those laying out urban or countryside planning projects including infrastructure works shall undertake to protect archaeological, heritage and historical sites as well as seek the written consent of the Antiquity Authority prior to the preparation of such projects or at the time of their alteration (Article 9/3). - When the implementation of a project of crucial significance to a development plan affects an archaeological site, the Archaeological Authority will take charge of conducting excavations at the expense of the entity responsible for project implementation. The duration of the excavation works shall be determined by the need to conduct detailed scientific excavations, while taking into consideration the timeframe of the project overall. Provisions shall be made to account for the cost of excavation works within the project's budget (Article 9/4). - Building permits shall not be issued for areas incorporating archaeological sites and or for areas that lie within a kilometre distance of such sites without the written consent of the Antiquity Authority. Consent shall be given within a thirty (30) day period (Article 9/5).
Nomination of sites on the WH list	- The Constitution of Iraq (preamble), as well as the Antiquity and Heritage Law (no. 5 of 2002, Article 1/2) refer clearly to the contribution of Iraqi culture to human civilization and to the importance of informing the international community about the unique role the culture of Iraq played in the development of human civilization. - The Law for the Protection and Enhancement of the Environment (Law no. 27 of 2009) refers to the objectives of the Council for the Protection and Enhancement of the Environment (one of the organs of the Ministry of Environment) with regards to collaborating with Ministries and other concerned bodies for establishing a list of natural and cultural sites for nomination on the World Heritage List. - Ministerial Decision no. 333 (Ministry of Environment) dated 18/3/2014 establishing the National Committee for World Heritage. The main objectives of the Committee (as per the Draft Bylaws of the Committee) consists of: 1- coordinating national efforts in the area of identifying, evaluating, protecting, managing, conserving and monitoring natural and cultural world heritage sites, both nominated or on the tentative list; 2- Acting as the main national point of reference for collaborations with the World Heritage Centre at UNESCO as well as with UNESCO's advisory bodies.
Ratification of other international conventions that might have an impact on the protection, conservation and management of WH properties	There is no direct reference in the text of the law to the conventions and international tools that were ratified by Iraq (or which ought to be ratified) and which contribute to adhering to international standards in the protection, conservation and management of the cultural heritage (in our case here). We list the conventions below: - Convention for the Protection of Cultural Property in the Event of Armed Conflict with Regulations for the Execution of the Convention. The Hague, 14 May 1954 and its 2 protocols (Protocol to the Convention for the Protection of Cultural Property in the Event of Armed Conflict. The Hague, 14 May 1954; Second Protocol to the Hague Convention of 1954 for the Protection of

	Cultural Property in the Event of Armed Conflict. The Hague, 26 March 1999); Iraq ratified the first protocol only in 21/12/1967. - Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property. Paris, 14 November 1970; Iraq accepted the Convention in 12/2/1973. - Convention concerning the Protection of the World Cultural and Natural Heritage. Paris, 16 November 1972; Iraq accepted the convention in 5/3/1974. - Convention on the Protection of the Underwater Cultural Heritage. Paris, 2 November 2001; Iraq did not ratify this convention. - Convention on the Protection and Promotion of the Diversity of Cultural Expressions. 20 October 2005. Iraq acceded to the Convention in 22/7/2013. - Convention for the Safeguarding of the Intangible Cultural Heritage. 17 Oct 2003. Ratified by Iraq in 6/1/2010.
Appropriate legal, scientific, technical, admin and financial measures for the identification, conservation, presentation and rehabilitation of heritage	- The objectives of the Antiquity and Heritage Law (no. 55 of 2002) shall be achieved through the designation of sites, scientific excavations, the maintenance of antiquities, heritage and historic sites, the establishment of museums to provide access to antiquities and heritage, the production of models and heritage materials, the undertaking of studies, research and the organization of conferences and talks that showcase the antiquities of Iraq and its cultural heritage, the featuring of Iraqi Antiquity and heritage materials in foreign museums, by forming archaeologists and heritage specialists and by developing their capabilities through training courses, missions abroad and fellowships, and the establishing of survey teams in charge of the national survey and inventory of antiquities, heritage and buildings in Iraq (Article 2). - The Law establishing the Ministry of Tourism and Antiquities (no. 13 of 2012) further emphasizes the objectives of the Antiquity and Heritage Law listed above. According to Article 4, the Ministry will undertake the following activities in fulfilment of its role and objectives: - Designating archaeological sites, maintaining and protecting them, undertaking archaeological excavations and establishing contemporary museums to make the cultural and historical Iraqi heritage known; - Repatriating stolen Iraqi Antiquities in coordination with the relevant governmental bodies; - Establishing plans and policies that are sympathetic to the social and cultural situation of the country in the service of areas of tourism attraction and in favour of protecting antiquities and heritage.
Prohibition of damaging activities that might affect the value or integrity/or authenticity of a WH property	- According to Article 15 of the Antiquity and Heritage Law (no. 55 of 2002), the following activities are forbidden: 15/1. Trespassing on archaeological, cultural heritage, and historical sites including hills and flat lands where archaeological objects were found, as well as on sites whose names and designations were not yet published in the Official Gazette; 15/2. Farming, residing, erecting habitats or other constructions on archaeological and cultural heritage sites, and their protection zones, or altering them;

	15/3. Using archaeological sites as dumping or deposition sites for construction debris or refuse or erecting buildings or burials or establishing quarries within; 15/4. Uprooting trees and vegetation and removing structures from archaeological sites or undertaking any works that would result in changing the features of the archaeological sites. 15/5. Establishing industries that pollute the environment or that pose a threat to public health in areas that are less than three (3) kilometres away from archaeological sites and cultural heritage buildings in all directions; 15/6. Tearing down an archaeological or a cultural heritage building, disposing of its construction elements, or using it in such a way that would entail damaging it, harming it or altering its attributes. - Alternatively, the Law for the Protection and Enhancement of the Environment (no. 27 of 2009), which aims as well at protecting the cultural heritage (since it is recognized as constituting a component of the environment), establishes in Article 2/17 as well as in Article 10 the mechanism for conducting environmental impact assessments as a pre-requisite for undertaking projects (probably large scale projects). Environmental Impact Assessment studies should identify the impact of any project on the environment, including its impact on the physical cultural heritage within a specific project area. - Similar provisions are mentioned in the Law for the Establishment of the Environment Ministry (Law no. 37 of 2008), Articles 1 and 3.
Prohibition of the illicit traffic of antiquities	- Article 20/1-4 in the Antiquity and Heritage Law (no. 55 of 2002) clearly addresses the subject of the illicit traffic of antiquities. - According to Article 22/3 of the Antiquity and Heritage Law (no. 55 of 2002), selling or gifting articles of antiquity or cultural heritage or taking them out of Iraq is prohibited except under the conditions that are stipulated in the law. - In addition to references in the Law of Antiquities and Heritage (no. 5 of 2002), the Law establishing the Ministry of Tourism and Antiquities (no. 13 of 2012) clearly mentions the need to work towards the repatriation of stolen Iraqi Antiquities in coordination with the concerned governmental entities (Article 4/3). - It is also worth mentioning here again that Iraq accepted in 12/2/1973 the Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property. Paris, 14 November 1970.
Protection of cultural heritage in times of war/conflict. Respecting the provisions of International Conventions to which Iraq is a	No reference in the Law to the Hague Convention of 1954 ratified by Iraq in its first protocol in 21/12/1967.

signatory.	
Boundaries for effective protection and buffer zones	
Ensure adequately delineated boundaries and buffer zones. Boundaries should be drawn to ensure the full expression of the OUV and the integrity and/or authenticity of the WH property (OGWHC, Sec. 99) *The boundaries should include sufficient areas immediately adjacent to the area of OUV in order to protect the property's heritage values from direct effect of human encroachments and impacts of resource use outside of the nominated area. (OGWHC, Sec. 101)* *A buffer zone surrounding the nominated property that has complementary legal and/or customary restrictions placed on its use and development to give an added layer of protection to the property. This should include the immediate setting of the nominated property, important views and other areas or*	- According to Article 9/1 of the Antiquities and Heritage Law (no. 55 of 2002), when state agencies and social sector agencies seize property located inside or outside the boundaries of the base maps of urban areas, or when they partition or divide such property, they shall refrain from exploiting archaeological sites and buildings or from making distributions (or allocations) of those sites. The relevant state agencies shall put in place appropriate buffer zones for such sites, in coordination with the Antiquity Authority. - Building permits shall not be issued for areas incorporating archaeological sites and or for areas that lie within a kilometre distance of such sites without the written consent of the Antiquity Authority. The consent shall be given within a thirty (30) day period (Article 9/5). - According to Article 15 of the Antiquity and Heritage Law (no. 55 of 2002), the following activities (which might affect the buffer zones of archaeological sites) are forbidden: 15/2. Farming, residing, erecting habitats or other constructions on archaeological and cultural heritage sites, **and their protection zones**, or altering them; 15/5. Establishing industries that pollute the environment or that pose a threat to public health in areas that are less than three (3) kilometres away from archaeological sites and cultural heritage buildings in all directions; - There is no mechanism in the Antiquity Law to determine the principles for identifying site boundaries and their buffer zones. This is left totally to the discretion of the Competent Authority (according to the Operational Guidelines of the WHC, boundaries should be drawn to include all those areas and attributes which are a direct tangible expression of the OUV of the property, as well as those areas which in the light of future research possibilities offer a potential to contribute to and enhance the OUV).

attributes that are functionally important as a support to the property and its protection. (OGWHC, Sec. 104)	
The buffer zone should be determined in each case through appropriate mechanisms. Details on the size, characteristics and authorized uses of a buffer zone, as well as a map indicating the precise boundaries of the property and its buffer zone (dOGWHC, Sec. 104)	The mechanisms used in determining sanctuary areas (or buffer zones) are unclear so are the guidelines governing those areas or their particular attributes. The extents of those zones might however figure on master planning documents of the planning authorities.
Management systems	
Conduct protection and management to ensure that the OUV including conditions of integrity and/or authenticity are sustained and enhanced (OGWHC, Sec. 96)	The principle of developing Management Plans for sites with the aim to protect and manage their significance and values is not referenced in any existing laws.
Regular review of general state of conservation of the property and the OUV	No reference.
Develop operating methods/procedures for counteracting the risks and dangers that threaten heritage	No reference to the need to develop specific strategies, plans or procedures to protect the sites and associated museums and documents and the upkeep thereof during wartime or during times of crisis.
Enhance the role of communities in the implementation of the WH property (OGWHC, Sec. 119)	No reference.
A management system is	No reference or mention of the need to develop management plans for archaeological properties.

there to ensure the effective protection of the nominated property for present and future generations (OGWHC, Sec. 109)	
The monitoring and assessment of the impacts of trends, changes, and proposed interventions. Risk preparedness as an element in their World Heritage site management plans and training strategies (OGWHC, Sec. 118)	No reference to any risk assessment to be conducted on antiquities sites.
The involvement of partners and stakeholders (OGWHC, Sec. 111)	Reference to coordination with the relevant government bodies for drawing boundaries and buffer zones.
The allocation of necessary resources (OGWHC, Sec. 111)	No specific reference to the need to provide major antiquities sites with the necessary resources to ensure their adequate management.
Measures concerning visitor management and tourism development	- According to Law no. 3 of 2012 establishing the Ministry of Tourism and Antiquities, the Ministry shall develop plans and policies that are sympathetic to the social and urban conditions of the land in service of areas of tourism potential as well as for the protection of antiquities and heritage (Article 4/5). - In addition, Article 4/7 mentions the activity relating to the supervision of tourism services at antiquities and heritage sites in such a way that they provide resources to the treasury of the Ministry as well as that they provide for the protection of these sites from the impact of visitation on the assets themselves.
Sustainable use	
Developing the economic potential of the WH property	- Law no. 3 of 2012 establishing the Ministry of Tourism and Antiquities clearly mentions one of the objectives of the Ministry as consisting of developing archaeological areas as important assets of the national economy (Article 3/3).
Presentation of heritage	The presentation of heritage seems to be limited to the realm of local or national museums, as well as museums abroad. The principle of site interpretation and presentation is not referred to in the Antiquity and Heritage Law (no. 55 of 2002).
Increase public awareness, involvement	Reference to public awareness is limited to Article 1/2 of the Antiquity and Heritage Law (no. 5 of 2002), consisting of the exposure of antiquities and heritage, as well as to informing citizens and the international community of the unique role Iraqi

and support for heritage through communications and advocacy	culture has played in the development of human culture. There is no reference to campaigning and using media and communications strategically as a means to increase public awareness and support for heritage.
Achieve a thorough shared understanding of the property by all stakeholders (OGWHC, Sec. 111)	No reference.
Provide information on education (primary, secondary and tertiary) and information programmes that have been undertaken or are planned to strengthen appreciation and respect by the population, to keep the public broadly informed of the dangers threatening the heritage and of activities carried out in pursuance of the Convention	No reference.
Promotion of Cultural Heritage	
The promotion of culture and cultural identity	- The Iraqi Constitution (Article 35) makes specific reference to the subject of promotion, attributing responsibilities to the State for promoting "cultural activities and institutions in a manner that befits the civilizational and cultural history of Iraq", seeking " to support indigenous Iraqi cultural orientations." - There is however no reference to government strategies and mechanisms that use culture (including the WH property) as major brands in the promotion of Iraqi identity.

The review of the legal framework affecting cultural heritage in general and the sites of Ur, Uruk and Eridu in particular has shown that there is a good basis for the protection, conservation and management of these property components at present. Two main issues need to be addressed however in order to achieve a more optimal and up-to-date legal framework that is essential for the sustainability of the sites in question:

1. Legal notions, principles, as well as tools and instruments are not unified in a single basic text governing the protection, conservation, management and sustainability of archaeological sites, instead, they are spread out across various legislations in the cultural as well as in the environmental domains;
2. Certain contemporary notions/tools/mechanisms of cultural heritage management are absent from the legal framework, it is important to include these in any future revision of the Antiquity and Heritage Law so as to make sure that the law is up-to-date and that it corresponds to the demands of the day in terms of managing cultural heritage. These notions and tools have been reported as 'Not referenced' in the table above and are summarized as follows:
    a. The need to prepare management plans for major sites in order to better define requirements for enhancing these sites and looking after them for the future;
    b. The need to draw risk preparedness plans together with clear operating procedures to deal with unforeseen situations and risks;
    c. The need to monitor and assess the impacts of trends, changes, and proposed interventions. Risk preparedness to be an inherent element in management plans and training strategies for WH properties;
    d. The need for clear financial mechanisms for the implementation of management plans including plans for interpreting and presenting cultural sites;
    e. The need for defining a process involving the preparation of archaeological impact assessments within the framework of Environmental Impact Assessment plans;
    f. The importance of strategic planning as a tool for driving the work of the National Committee for World Heritage (NCWH) as well as for defining the objectives of management plans;
    g. The need for a clearer mechanism for designating and managing change within buffer zones;
    h. The need for regular monitoring regimes targeting the state of conservation of archaeological sites;
    i. The importance of enhancing the role of communities in the implementation of site management, particularly WH properties, and the establishment of a common vision for the future of these sites;
    j. The need to involve the SBAH/Antiquity and Heritage Directorates (AHDs) in the definition and alteration of urban and regional master plans to ensure that heritage is a significant component of the vision for the future;
    k. The importance of making sure that archaeological sites play a major role in the development vision for the area and the development of the economic potential of sites through strategic planning and the involvement of the stakeholders;
    l. The need to promote the significance and values of sites and introduce site awareness into the formal and informal education system;
    m. The development of clear and systematic communications strategies for promoting the heritage of these sites.

Some of these principles have been addressed in Law no. 2 of 2014 (Regulations for Natural Reserves) as well as in Law no. 27 of 2009 (Protection and Enhancement of the Environment). Although they concern natural sites, these two instruments offer good references to look into for legal precedence.

It is noteworthy that a number of amendments to the current Law for Antiquities and Heritage are being prepared by the SBAH and will be presented to the Iraqi Parliament for ratification. These amendments could be expanded to take into account the gaps identified above in the current Antiquity and Heritage Legislation.

2.2. Planning Framework

The process of urban and territorial planning is organized in the framework of the Planning Law as well as the Law Organizing Governorates.

Urban and Regional Planning is undertaken at the governorate-level via the Ministry of Municipalities and Public Works (MoMPW), and master plans are revised on a yearly basis and submitted to the concerned Department of Antiquities for approval.

In the case where a master plan needs to be developed, a committee is created with representatives from the various directorates in the governorate, including the Antiquity and Heritage Directorate (AHD). The committee then meets and goes over the proposed master plan presented to it by the municipality and then tries to integrate its concerns within the design of the master plan. After the committee concludes its work, the master plan is published in the Official Gazette for a period of 6 months, thus allowing any government entity to voice its concern with regards to any infringements the master plan might exert and or be deemed inappropriate. In such cases, the Master Plan is returned for revision.

The AHD's position within such committees has mostly been one concerned with the protection of heritage sites to the maximum possible extent; this is done by limiting any interventions within the area of the sites as well as their buffer zones. However, the archaeologists representing SBAH in master planning committees do not benefit from the strategic support of trained urban planners with experience in planning historic environments. This is a shortcoming addressed in the Action Plan.

Section III. Current Management System and Challenges

3.1. Management System

The **State Board of Antiquities and Heritage** (SBAH), currently under the **Ministry of Tourism and Antiquities** (MoTA), is the main authority responsible for the follow up of the conditions and conservation of the three sites of Uruk, Ur and Eridu. A **WH Site Section** exists within the SBAH in Baghdad (under the Department of Investigation and Excavations), which has been involved in the preparation of the new Management Plans for these sites.

At the governorate level, **Antiquity and Heritage Directorates** (AHDs) are directly responsible for ensuring the conservation, management and monitoring of archaeological sites inside their respective jurisdiction. Each directorate includes a Restoration and Conservation Section, an Investigation and Excavations Section, and a Museum Section responsible for all activities taking place at the sites within the governorate. Heads of Sections report to their respective Director of Antiquities and Heritage who reports to the Chairman of the SBAH. **Antiquity Inspectors** are responsible for monitoring the condition of sites (such as Uruk, Ur and Eridu), however there is no Site Management Section within AHDs, or dedicated management structures for the large individual sites. AHDs are assisted by the **Antiquity and Heritage Police**, created in 2007 under the Ministry of Interior, and charged with monitoring security at archaeological sites.
The Dhi Qar AHD has jurisdiction over Ur and Eridu, whereas the Muthanna AHD has jurisdiction over Uruk. None of the sites under consideration has at present a local site management structure. The only dedicated staff consists of site guards: three in Ur (living on site with their families), one in Uruk (also on site with his family), and one in Eridu (conducting daily inspections from Nasiriyah). Furthermore, the Antiquity and Heritage Police maintains a permanent presence at Uruk and Ur and regularly patrols the site of Eridu.

The security network that is operational at the sites of Ur, Uruk and Eridu consists therefore of the Antiquity and Heritage Police, the Antiquity Inspectors of the Muthanna and Dhi Qar AHDs, as well as the guards of the three sites.

Illegal excavations have not taken place at the sites. Evidence of illegal digging at other cultural sites are reported all the way up to the Deputy Minister of Antiquities and Heritage and the matter is taken up formally with the Governor of the concerned area to instruct the police and other security forces to intensify their operations in the areas where the infringement occurred, including mobilizing more patrols.

Requirements and Recent Measures
The presence of a permanently staffed management structure is a requirement for both Ur and Uruk whereas Eridu can be managed by the Ur team since the site will not be open for visitation and because its remains are not substantially exposed. At the minimum, Ur and Uruk should have a site manager, a small team of technicians to carry out maintenance work, and a number of guards adequate to guarantee day and night shifts. The presence of a police unit would be an asset, in order to ensure the patrolling of the site and its buffers.

In an internal decision dated 15/2/2015, the formation of a management structure (a Site Management Team) for managing the site of Uruk in accordance with the provisions of this Management Plan was sanctioned by the central administration of the SBAH.

3.2. Conservation, Monitoring and Maintenance

The SBAH is aware of the problems affecting most excavated areas at the sites, and correctly identifies them with the action of water, wind, and human intervention. Given the absence of local management structures at the sites, however, no regular cleaning or maintenance has been conducted there, thus resulting in the excavated and/or restored areas undergoing decay, or disappearing under newly accumulated sand and debris.

The SBAH, in partnership with foreign missions, is in the process of developing conservation plans for those buildings considered to be more at risk or warranting priority action, either because of their architectural, historic, religious, or traditional and community-based values, or because of their potential to attract visitors in the future.

It is necessary however to include these interventions in a coordinated, planned approach to conservation, in order to avoid the risk of an unsustainable intervention, wasting financial resources and creating the basis for more conservation problems.

Furthermore, no regular monitoring is presently being carried out at the sites. The guards on site in Uruk and Ur, and the one regularly visiting Eridu, are in charge of controlling and limiting access to the sites, and do not have specific instructions nor expertise to observe and report specific damage to the structures, nor to control vegetation growth or clean the site from debris and garbage.

The lack of conservation and maintenance activities at the sites is resulting in the progressive deterioration and collapse of many ancient features. Some of the most endangered structures are those that received substantial conservation in the past, such as the White

Temple in Uruk, the E-dub-lal-mah Temple and the Royal Tombs in Ur. In Eridu, most excavated areas are now reburied and it is not possible to have an idea of their previous state of conservation until renewed excavations will bring them to light again.

The establishment of a comprehensive conservation record for all major features, in addition to a typology of structural and fabric deteriorations and prescriptions for repair, conservation, maintenance, as well as renewed research, investigation, site presentation and interpretation, are part of this Management Plan. This should include the presence (at least in Uruk and Ur) of permanent staff with sufficient skills to carry out maintenance operations and monitor the activities of missions working on site, the movements of visitors, and any activity in the core and buffer zones that may affect the integrity and authenticity of the sites.

3.3. Site Documentation

Studies, reports, and plans, including those produced by foreign missions, are held by the SBAH at the Department of Studies and Research in Baghdad. Some of these reports are also available in digital format and an effort to expand the digitization of the collection is under way.

Objects found in excavations are inventoried and deposited at the Iraqi National Museum in Baghdad. This is considered a standard practice of reporting and submitting finds to the National Museum, as stipulated by the contract for archaeological excavations issued by the SBAH to archaeological missions.

3.4. Human Resources and Capabilities

General Considerations
Due to the specific circumstances of Iraq over the past decades, it is an admitted fact that the conservation expertise of the professional staff in the various AHDs does not level up at present to the required standards for World Heritage properties.

Staff members of AHDs are generally graduates from Archaeology or Civil Engineering Departments at Iraqi Universities. In both cases, heritage conservation and management are not included in the curricula. The SBAH provides for capacity development by enrolling its staff in training courses (archaeological survey methods, English language, architecture, computer and IT, excavation and conservation methods, etc.) at the National Conservation Institute in Erbil, or abroad. An archaeological recording and survey course is also delivered in Babylon.

Furthermore, foreign archaeological missions, such as the German Archaeological Institute, that have resumed work in Iraq in recent years generally offer on-the-job training to Iraqi archaeologists during excavation seasons. Some also organize specific training courses. This is the case with the Italian mission in Ur (University of La Sapienza in Rome), which is excavating a site outside the property, and is delivering training in object conservation in Nassiriyah.

Lately, a large contingent of new recruits was hired at AHDs with the aim to support existing site managers. These recruits have started being dispatched to the sites, but they require a systematic capacity building program to qualify them in a range of specialties that are essential for site management, inter alia, monitoring, maintenance, documentation, and visitor management.

Situation in Dhi Qar and Muthanna

The Dhi Qar AHD (for Ur and Eridu) is headed by a local officer holding a BA in Archaeology, and includes forty-one archaeologists, nine administrative staff, and two-hundred-and-five site guards.

The Muthanna AHD (for Uruk) is headed by a local officer with a BA in Archaeology, and includes twenty-nine archaeologists, three administrative staff, and one-hundred and three site guards.

The SBAH reinforces the number of archaeologists and other professionals during excavation or conservation works. On an ad-hoc basis, engineers from the Basrah AHD can supervise work in Dhi Qar and Muthanna.

Several archaeologists in Muthanna and Dhi Qar have participated in training programmes in Iraq and abroad since 2003 and are able to supervise regular condition assessment activities. As regards comprehensive conservation and restoration projects, the SBAH intends to carry them out in close collaboration with foreign missions, and to systematically request that Iraqi staff be trained on the job by these missions. Furthermore, excavations associated with the work of foreign missions have provided opportunities for neighboring communities to benefit from daily labor jobs on a seasonal basis. This has been the case at Ur since the year 2000 at least.

The SBAH is planning to develop a systematic and scientifically based program of capacity building for all its staff. The regional Athar program of ICCROM is another potential platform to tap into in order to help build capacities that are necessary for managing the sites of Uruk, Ur and Eridu, once the requirements of training and capacity building are evaluated and specified.

In addition to the internal resources of the SBAH, some qualified private companies have set up base in Basrah in order to work on conservation related contracts. These companies could be engaged by Governorates to implement conservation projects. However the challenge will be to ensure that the development of the specifications, together with the monitoring of implementation, are entrusted to

qualified heritage conservation experts knowing that this profile is currently lacking among the archaeology and engineering staff in the SBAH both in Baghdad or in the AHDs.

3.5. The National Committee for World Heritage (NCWH)

Provided that the nomination of the property results in its inscription on the World Heritage List, the Government of Iraq (GoI) will issue a cabinet legal decree recognizing the special status of all components as a World Heritage property. Accordingly, the GoI will put in place financial, institutional, technical, administrative and logistical measures to ensure the integrated WH management within the legal mandates of the Ministry of Environment for the natural values, and the Ministry of Tourism and Antiquities for the cultural values, with the overarching coordination and oversight role entrusted to the National Committee for World Heritage (NCWH).

The draft bylaws of the NCWH reference some of the up-to-date principles of site management as well as acts as a very good coordination tool between different government bodies. It is essential therefore for the NCWH to be activated, to meet and conduct its activities as stipulated in its draft mandate, and particularly to monitor the implementation of the management plan of the proposed property.

Section IV. Other Management-Related Factors

4.1. Education, Awareness Raising and Appreciation

The Iraqi curriculum includes many references and modules explaining the history and development of Iraqi culture, and sites such as Ur, Uruk and Eridu figure prominently. There is however no reference to the World Heritage Sites of Iraq, as well as to those sites that are on the tentative list, explaining why these sites are important for humanity as a whole and what are some of the important steps to appreciate them and look after them.

A target of the management plan is to raise awareness in Iraq of the global value of the property's natural and cultural heritage. An important component of the World Heritage nomination process for the property has been to build national consensus and shared awareness and understanding among government and non-government institutions of the importance of an effective national protected areas network with its associated socio-economic and local development targets. Efforts have also been directed towards raising national and local awareness of the concept of World Heritage, what it means and what it involves. For example, the Dhi Qar AHD has conducted meetings with the tribal communities around the site of Uruk with the aim to sensitize them about WH and the value of the site. In Muthanna, the AHD conducts university lectures to introduce students to the importance of the archaeological heritage, particularly that of Uruk.

But much remains to be done to disseminate this knowledge in communities living around the sites of Ur and Uruk (Eridu standing in a desert area) and to local authorities in Dhi Qar and Muthanna.

Planned Activities
Provided that the necessary budget is secured, the SBAH, through its Public Relations Section and a Media Section, plans to work with community representatives and with NGOs to increase awareness about the global values of the sites.

Furthermore, the SBAH can mainstream World Heritage education in its regular activities, namely:

- Public awareness and community participation;
- The involvement of local teachers and students in activities on site (particularly at Ur);
- Promotion of awareness activities at the local and regional level (site days, festivals, cultural events);
- Promotional activities, such as the printing and distribution of brochures and advertisements concerning the sites;
- Encouraging private enterprise in tourism related activities such as handicrafts.

4.2. Tourism Development

Current Situation
Tourism activities are still rather limited in numbers and distribution across the property as a whole, and the cultural components in particular. This is a result of several factors including the current security situation and the lack of proper marketing and promotion of both the natural and cultural components of the property as a potential tourism destination. Current visitation is merely by domestic short-stay visitors from neighboring areas wishing to enjoy greenery and have an outdoor activity away from crowded city life. Other small numbers of visitors include foreign tourists, journalists and reporters coming mainly for media coverage of the property's cultural and natural values.

Existing Development Plans
There are no ongoing local economic development plans targeting the area where the sites are located, nor any planned activities related to investment and marketing related to the sites. It was not possible to identify the existence of region-wide development strategic plans. Communication and coordination with the Governorates will be extremely important in order to address the opportunities for tourism development in the region in any future plan.

The 2013 National Tourism Strategic Framework, developed by MoTA with the technical support of UNESCO, considers cultural heritage a fundamental element of the strategy, and tourism an important contributor to the conservation of this heritage.[1]

The 2013 National Tourism Strategic Framework also indicated a number of weaknesses and threats in Iraq's disposition towards the development of cultural tourism, identifying poor documentation, limited conservation and preservation of heritage, lack of public awareness, poor infrastructures, and lack of specific expertise as the main obstacles to implementing a cultural tourism strategy in the country. The Strategy identifies three pillars that should sustain Iraq's growth in the tourism sector, namely:

- Institutional development (mainly in the form of coordination between ministries, planning at the national and regional levels, monitoring of the industry, and encouraging training and capacity building);
- Private sector engagement (via commercial enterprises and public-private partnerships). The strategy does not recommend the privatization of heritage sites (p.155), but only of services that may be better managed by private institutions or businesses;
- Human resources development (providing training options and tourism awareness, besides product development and

[1] National Strategic Framework, Project of assisting the Government of Iraq to develop a National Tourism Strategy, section 2/4, March 2013 (p.21).

marketing). Among the recommended product development is the archaeological and heritage tourism (p.176), warning however that poorly managed sites may be threatened and not helped by increased tourism.

Shortcomings and Challenges

The development of the tourism sector faces a number of challenges that can be summarized as follows:

- Ongoing unstable political and security situation of Iraq;
- Limited public financial resources and poor investment of local/foreign private sector;
- Poor services (roads, hotels, transportation, etc.) especially towards/in potential tourism areas;
- Poor banking services according to international standards;
- Poor tourism administration;
- Low standards of hotel facilities;
- Low awareness of tourism potential and poor methods of promoting and marketing tourism.
- Limited numbers of tourism professional personnel and limited vocational centres for training in tourism services;
- Limited private investment companies, restricted to individual investors with limited resources;
- No long-term strategy for the development of tourism, heritage and cultural activities;
- Little local interest in cultural heritage, little awareness of the economic potential of this resource;
- Poor database available on tourism, heritage and cultural activities;
- Poor knowledge of the World Heritage concept and of its opportunities and obligations.

Future plans will have to take these issues into consideration in order to elaborate a vision and a strategy to integrate tourism, culture and heritage in a regional development context. Such plans should avoid the error to consider culture and cultural heritage only as a driver for increased tourism revenues, and instead look also at opportunities offered by activities such as conservation, rehabilitation, revitalization, which will provide benefits not only for visitors and for those directly involved in tourism services, but also to the local communities at large.

Furthermore, the following information will be needed to formulate a feasible tourism development plan: statistics concerning number of beds in hotel facilities in the major cities in the region, the type of facilities available, and the bed occupancy rate over the past years.

Opportunities

The National Tourism Strategic Framework could be a vehicle for channelling plans for upgrading the tourism infrastructure of the sites and for increasing awareness and appreciation of their values. The SBAH is to nominate representatives to be part of the committee steering and overseeing the implementation of the tourism strategy.

In Uruk and Ur, the tourism infrastructure needs to be developed from scratch, but there is an opportunity to develop it in a considerate way and without putting at risk the integrity and authenticity of these sites. The main challenge is how to develop infrastructures for visitors and tourists at sites where most architectural and urbanistic features are largely buried underground. For this reason it is preferable that the first tourism infrastructures and interpretative features be temporary, in order to allow for more areas to be properly excavated or re-excavated and conserved. On the other hand, there is no plan for encouraging visitations to Eridu as the site is too remote and challenging to protect. The site will however be presented and interpreted within the facilitie at Ur and Uruk.

Furthermore, it is expected that if the tourism industry picks-up, traditional crafts, other local productions and small businesses will benefit.

Finally, there is currently a plan for holding a regular festival for the Ahwar, which could be an opportunity to highlight the importance and significance of the proposed World Heritage property, by launching an awareness campaign there, organizing tours, distributing materials, staging a performance program, etc.

Section V. Key Threats

Lack of regular maintenance compounded by **erosion** (in particular strong winds), limited vegetation growth (especially in areas where water and moisture accumulate), and **uncontrolled access** over exposed and precarious ruins by some visitors, have been identified as the most important threats to the conservation of the three cultural components.

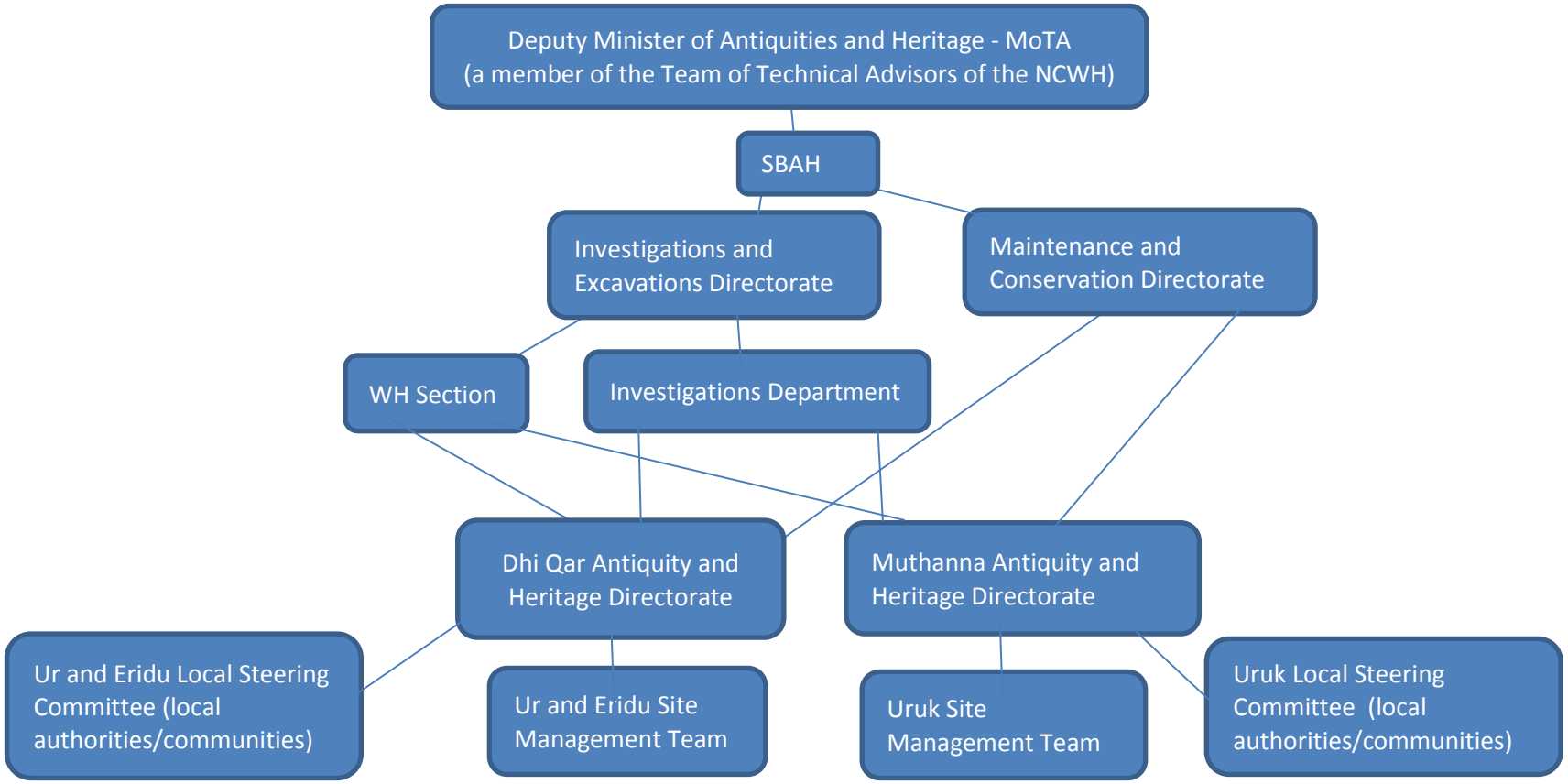
Table 1.3. Key Threats to the Conservation of the Cultural Components of the Property

Threats	Uruk	Ur	Eridu
Infrastructure Development	Low	Medium	Very low
Agriculture Expansion	Medium	Medium	Very low
Mining/oil	Very low	Very low	Very low
Solid Waste	Very low	Very low	Very low
Climate Change	Very low	Very low	Very low
Desertification	Very low	Very low	Very low
Military/security activities	Very low	Medium	Very low
Natural Catastrophes	Very low	Very low	Very low
Tourism and Visitor Pressure	Very low	Low	Very low
Lack of regular maintenance/ conservation interventions	High	High	Medium
Improper conservation interventions	Medium	Medium	Low
Water and/or wind erosion	Very High	Very high	Very high
Invasive vegetation growth	Medium	Medium	Medium
Uncontrolled access/trespassing	Medium	Medium	Medium

Section VI. Proposed Management Structure

The diagram below clarifies the structure proposed to ensure coordination and cooperation between all parties involved in the management and development of the three cultural components of the property. It highlights responsible actors (MoTA at the national level), lines of authority, and coordination mechanisms with other primary management stakeholders at the local levels (Antiquity and Heritage Directorates, other local authorities, and local communities).

Figure 1.1. Management Structure of the Cultural Components



Section VII. Proposed World Heritage Compliance Monitoring and Reporting System

The State Board of Antiquities and Heritage (SBAH) has been regularly monitoring the archaeological sites though its local Antiquity and Heritage Directorates (AHDs).

In the prospect of the inscription of the property on the WH List, the Dhi Qar and Muthanna AHDs will systematically request from the World Heritage Section of SBAH to review and validate any planning documents, regular or exceptional, related to Uruk, Ur and Eridu to check their compliance with WH standards. Only after this check is performed will documents be communicated to the Investigation Department, any other upper-level department at SBAH, any local authority, and/or site managers.

Furthermore, any development intervention proposed by national or local authorities and of relevance to the three sites and their environment will have to be submitted for review and approval to the WH Section that will refer to the NCWH in case of issues requiring higher technical or political support.

On a monthly schedule, site managers will monitor implementation of action plans, and report back simultaneously to their AHD and the WH Section. The WH Section will review the monthly reports to monitor compliance with WH standards.

On a quarterly basis, and at any other time in case of emergency, the WH Section will inform the NCWH of progress and issues.

The NCWH will compile reports from all the Site Management Teams of the property, and prepare a yearly report on the state of conservation of the property to share with MoTA, MoE, MoWR and the Iraqi National Commission for Education, Science and Culture (NatCom). The NCWH will alert these agencies at any time in case of issues requiring their urgent attention and/or action.

Furthermore, the NCWH will prepare the periodic reports that will be conveyed to the WH Committee through NatCom.

Section VIII. General Management Goals and Objectives

The conservation of the three main archaeological sites included in the property adopts the approach of **Integrated Heritage Management Planning** and encompasses the following sets of constituents:

- Protection (legal and planning frameworks);
- Research and conservation:
- Capacity building;
- Management and infrastructure development;
- Interpretation, education, visitation, and tourism;
- Awareness building and partnerships.

On that basis, **the overall management goal** for the three cultural components of the property has been defined as follows:

> *To ensure the long-term conservation of all the archaeological remains included in the property, limiting negative impacts while respecting the value of this heritage for local people and visitors, and providing economic benefits to local stakeholders based on the sustainable use of these sites.*

Strategic objectives for each set of constituents are as follows:

- **Protection objectives:**
  To provide for legal, institutional and planning mechanisms allowing the effective implementation of site-specific management plans together with coordinated management at the overall property level.
- **Research objectives:**
  To foster and regulate excavation and research, encourage public archaeology, and develop national documentation capacities.
- **Conservation objectives:**
  To develop and implement coordinated, sustainable and cost-effective conservation plans and actions, including monitoring and maintenance regimes.
- **Capacity building objectives:**
  To establish, improve and sustain the required technical and professional capabilities for the efficient protection, conservation and management of each site.
- **Management and infrastructure development objectives:**
  To establish, improve and sustain the required management system and infrastructure for the efficient protection, conservation and management of each site.

- **Interpretation, education, visitation, and tourism objectives:**
  To disseminate high-standard knowledge about the sites, and provide a quality visiting and educational experience aligned on international standards.
- **Awareness building and partnerships objectives:**
  To encourage the local population and authorities to be partners in protecting the sites and their surroundings, and allow local communities to benefit from visitation and tourism activities.

Section IX. Operational Objectives

This section outlines the main operational objectives for the conservation of all attributes and values of the cultural components of the property with their timeframes (in Table 3.4). These objectives form the basis for the Action Plan included below under Section V.

Protection

- To activate the National Committee for World Heritage (NCWH), and establish a Team of Technical Advisers (TTA) under the NCWH to play a coordination role within and between concerned government agencies at national and governorate levels.
- To incorporate contemporary notions, tools and mechanisms of cultural heritage management into the revised Antiquity and Heritage Law.
- To ensure local participation in decision-making and implementation of the MPs through the creation of Local Steering Committees, one for Uruk, another one for Ur and Eridu.
- To integrate national, regional and local plans by:
    - Gathering information on planned infrastructural and territorial development plans at the national, regional, and local levels;
    - Ensuring the compatibility of the plans with the protection of the property's values;
    - Integrating the objectives of the property management plans with those of other plans;
    - Elaborating a future vision of the property within the overall national, regional and local visions for development and improvement.
- To improve the planning process by:
    - Establishing a permanent presence of the SBAH/AHDs inside planning committees at all levels;
    - Streamlining the planning process, by allowing the SBAH/AHDs to provide an opinion on new projects at the pre-feasibility stage (to avoid costly modifications) and to make sure that the property's cultural components are not only protected, but also provided with the means to play a significant role in future development plans.
- To enhance on-the-ground protection of the property components by:
    - Clearly marking the boundaries by means of signposts or permanent markers, and improve efficiency of fencing at Uruk and Ur.
    - Developing GIS and remote sensing tools to enable the boundaries and buffer zones of the components to be accurately monitored;
    - Ensuring enforcement of penalties for the infringement of boundaries and buffer zones and widely disseminating their awareness among local and national stakeholders.

Research

- To develop a research strategy in consultation with national and international research centres and other stakeholders. The strategy will be incorporated in the individual management plans and its annual implementation will be presented in an annual plan with related budget estimates, whenever this is possible.
- To ensure that all research and excavations requests are in line with the above-mentioned strategy and that their authorization is approved by the Directorate of Excavations and validated by the Chairman of the SBAH.
- Based on the Antiquity and Heritage Law, to prepare and provide excavation, documentation, and conservation guidelines, and a reporting format to excavation teams working in the perimeter of the three components. The guidelines will include precise instructions on how to report and document the activities conducted on site. Excavations will have to include a component of site stabilization and conservation.
- To establish rules and regulations for new research permits (excavation methodology, conservation of exposed materials, etc.).
- To encourage continuing research at the sites, in order to clarify their characteristics and significance, also by defining priority areas for new research.
- To encourage conservation of newly-found features.
- To encourage the development of public archaeology, i.e., engaging people in the archaeological process through community participation in research activities, the presentation of archaeological information and the interpretation of this information with public participation.
- To complete the archaeological survey of the sites, expanding it to their buffer zones and beyond, in order to ascertain the archaeological potential of the sites and their surrounding areas, by various means, including remote sensing.
- To establish a GIS database to manage archaeological and conservation interventions. All data collected should be linked so that the database can interface with existing and future data sets originating from various sources (possibly by adopting the ARCHES system to integrate this information).
- To establish a system for inventorying and monitoring the movements of objects from the site to storage facilities and museums, and for those on loan to national or foreign institutions.
- To organize every two years a sites study day, where research concerning the sites (archaeological, historical, epigraphic, etc) can be presented and discussed with participation from the concerned and engaged community members at plenary sessions.
- To establish an Ur, Uruk and Eridu Documentation Centre at the SBAH's premises in Baghdad. The Documentation Center will contain copies of all documents about the sites, published and unpublished, already available at SBAH's documentation centre or made available by other institutions in the course of the years. The resources of the Documentation Center should be made accessible remotely to the management of the three sites.
- To digitize all the available material in order to create an online repository, initially for internal use at the SBAH. The

Documentation Center holdings may also be made available online for easy use by international scholars and the undertaking of remote studies on the sites. In this case, copyright issues for published material will have to be considered.

- To define rules for access to and use of the Documentation Center by external scholars.

Conservation

- To produce conservation plans for each of the three sites incorporating the following basic elements:
  - Short-term, mid-term and long-term conservation objectives;
  - Yearly identification of conservation actions to be implemented on the short term and their inclusion in Annual Plans with accurate budget estimates;
  - A standard methodology for documentation and assessment developed with specialist, including, where necessary, specialist studies and analyses;
  - A minimal intervention philosophy, with the use of compatible materials and avoiding conjectural reconstructions;
  - Minimal skills required for technical and professional workers assigned to the project;
  - Application of strict safety procedures for the people working on site;
  - Development of guidelines for the long term maintenance of the conserved sites;
  - For monument or building to be presented to the public, the development of concepts and plans for their interpretation and display, including paths, shelters, and security, as well as risk preparedness procedures.
- To take the following conservation actions responding to needs as perceived by site managers, conservators and archaeologists who have worked at the sites or are aware of their conditions:
  - Develop conservation specifications to tackle typical conservation problems or decay mechanisms with the support of conservation experts;
  - Ensure that any development work in the area, including those planned by MoTA for tourism development purposes, are subjected to a impact assessment and are approved by the site manager and the Chairman of the SBAH prior to granting development permissions;
  - Ensure that approved development works are monitored by SBAH's archaeologists, or by technical experts from relevant stakeholders;
  - Establish conservation guidelines concerning interventions on each site and for identified threats and risks. Guidelines will recommend the minimum standards for intervention, including professional profiles required for the supervision of project implementation. They will also incorporate risk preparedness guidelines and protocols, which will be developed together with a risk matrix. Compilation of the guidelines will follow established standards and the authors will seek the opinion and advice of national and international experts. Provisions for site protection in case of war will also be

mentioned, such as the display of the Blue Shield and other recommendations set forth in the Convention for the Protection of Cultural Property in the Event of Armed Conflict (1954) and its 1954 Operational Protocol;[2]
    - Establish a standardized reporting format for conservation and documentation activities, and include instructions on minimum standards for photography and graphic documentation and archiving;
    - Tackle the issue of graffiti by a combined action of better guarding, and sign-posting. Provide information on the damage caused by graffiti and vandalism, as a way to raise awareness on this threat and instruct on proper behavior;
    - Address the issue of water drainage by documenting water movements inside the sites, recording in particular the area where water collects and undercuts walls and other architectural features, or where erosion is particularly evident. Develop a plan to redirect water away from the archaeological remains.
    - Establish an architectural conservation laboratory at Ur and at Uruk;
    - Establish conservation priorities at each site based on criteria such as significance, urgency, and threat;
    - Ensure that conservators working on site have the required expertise and training;
    - Closely monitor any conservation activity.
- To establish monitoring and maintenance regimes as fundamental elements of the conservation strategy, whereby:
    - The local site management office will coordinate monitoring and maintenance, reporting back to their respective Directorate;
    - Specific guidelines, protocols, list of actions, forms and a database will be developed for monitoring and maintenance of the archaeological features, together with site infrastructures, facilities, and visitor behaviour;
    - Elements of the monitoring and maintenance regime will be developed in coordination with conservators and archaeologist of national and international missions;
    - Monitoring and maintenance will be budgeted on a yearly basis;
    - Interval of monitoring exercises ideally will never exceed four months, establishing a quarterly cycle;
    - Monitoring and maintenance will be conducted by trained technicians, closely supervised by archaeologists/conservators, according to the guidelines and protocols;
    - The monitoring of visitor behaviour will be conducted with the help of site guards and tourist police;
    - A permanent guard will be assigned at the most visited locations during periods of high visitation.

[2] Iraq has not ratified the Convention's Second Operational Protocol (1999).

Capacity Building

- To establish minimum required technical and professional capabilities in site protection/conservation and management at the site level by creating dedicated Site Management Teams (SMTs) for Ur/Eridu and Uruk. Each SMT will require the following basic staffing:
    - Guards: Guards that reside on site currently guard both Ur and Uruk independently. The current configuration is sufficient to deter trespassers since the guards are recruited from the adjacent community and therefore, they enjoy the backing of their respective clans. Nevertheless, in the event of increased visitation on site, it would be optimal to allocate a number of five guards per site to take charge of monitoring visitors, enforcing health and safety regulations and reporting any irregular behaviors or practices on site.
    - Archaeologists: At least two archaeologists will be part of the fulltime management contingent on each site. The archaeologists will take charge of conducting evaluations on exposed archaeological deposits as well as enabling maintenance and conservation works to take place. Their technical capabilities need to be significantly well honed by embedding them within foreign archaeological missions as well as by enrolling them in training courses on archaeological documentation and techniques.
    - Conservators: Due to the large expanse of Uruk, Ur and Eridu and the historical accumulation of conservation issues, it would be reasonable to build up a contingent of archaeological conservators to tackle the immediate and long-term conservation needs of the sites. Judging from the ephemeral nature of the fabric of the sites (mainly earthen architecture), it is guaranteed that these resources will have a significant task on their hands for decades to come. In this respect, the SBAH should aim to form a team of three professional and fully operational technical conservators (for each site) to lead and supervise conservation programs on site in close coordination with the site manager and the lead archaeologist, starting with condition assessments, conservation planning and implementation.
    - Site Managers: Ur and Uruk should have a dedicated resident Site Manager looking after the implementation of the provisions of the management plan and making the necessary amendments on it so that it is regularly updated and sustained. The Site Manager is to manage all the requirements of the site as initially recorded in the management plan as well as deal with eventualities.
    - Communications Officers: Ur and Uruk should have a dedicated Communications Officer whose task is to regularly interface with the site guides updating them on new information relating to the site, its history, archaeology and significance, as well as taking charge of implementing awareness campaigns and engaging with the local community and the educational sector.
    - Support staff and trainees: In order to guarantee the maintenance of the management system at each site, a number of support staff and trainees consisting of fresh university recruits should be incorporated in the system and given less critical tasks to support the implementation of the management program. Other forms of support resources should be

recruited from the communities living adjacent to the site and tasked with supporting excavation as well as maintenance works on each site.

- To establish the following capacity-building activities:
    - Site-specific training programs in collaboration with foreign missions, the National Conservation Institute (Erbil), and the ICCROM Athar program. The programs will address the following:
        - For site guards and Antiquity and Heritage Police: basic security, health and safety, risk preparedness, emergency response; control of illicit excavations and traffic of antiquities;
        - For technicians: site monitoring and maintenance, documentation, preventive conservation;
        - For conservators: site monitoring, risk preparedness, maintenance, conservation, preventive conservation, site documentation; archaeological constructions and deterioration processes; knowledge of the site's archaeological issues;
        - For archaeologists: site documentation, site monitoring, risk preparedness, archaeological excavation techniques, preventive conservation;
        - For site managers: site management techniques, risk preparedness, emergency response, site security, preventive conservation;
        - In collaboration with the Civil Defence, training for the fire fighters stationed in the nearest station for appropriate intervention at the site in case of an emergency, and training for medical emergencies associated with cases that are most likely to occur on sites, such as for example, heat strokes, venomous bites, trauma, etc.
    - Regular assessment of the capacities of the staff and provision of training as required on issues directly related to duties.
    - Knowledge and awareness raising of WH issues among the SBAH upper management level, through targeted meetings and workshops.

Management and Infrastructure Development

- To establish the minimum required management system at each site by:
    - Preparing Annual Site Plans by periodically convening a committee of technical experts including SBAH staff and other concerned staff from MoTA.
    - Ensuring periodic evaluation and revision of the Annual Site Plans.
- In the short-term:
    - To design and develop the following essential infrastructure:
        - Management office (structure and location);
        - At Eridu, a basic facility for researchers, site guard and police.

        - At Uruk and Ur, conservation laboratories and research/documentation centers (including accommodation for excavation teams/researchers and taking into account cultural requirements);
        - Accommodation for site guards;
        - Guards/police/security office and other installations as deemed appropriate (fences, gates);
        - Access roads, parking structures;
        - Temporary visitor center and temporary paths;
        - Pollution control, including visual pollution (such as electric poles and buildings just outside buffer zones).
    - To ensure that that these structures, even if temporary, have architectural quality and are installed away from the core zone, possibly in the buffer zone or just outside of it to avoid archaeological impacts.
    - To evaluate existing structures for their historical and architectural value, and make decision as regards their removal or adaptive reuse.
    - To build temporary paths following the principles of total reversibility.
- In the medium and long terms, once each site has a properly staffed management structure:
    - To schedule and follow up with the design and installation of the following tourism-related infrastructure:
        - A visitor center, site museum and visitor services (cafeteria, washrooms, bookshop/souvenir shop, preferably built at the edge of the site's buffer zone);
        - Paths for visitors, and a plan for the circulation of visitors within the site (paths will be designed and built in order to minimize the impact of visitors on the archaeology. They will respect the topography and the original urban layout of the sites);
        - Signage on site (unobtrusive and reversible);
        - Civil defence structure (fire brigade and ambulance): can be located outside of the buffer zone to serve both the needs of the site and of the nearby communities.
    - To commission an architect, or launch an open architectural competition, for the design of these structures;
    - To ensure that these structures are located in the buffer zone or at its margins.

Interpretation, Education, Visitation, and Tourism

- To develop an interpretation plan based on the following principles:
    - The SBAH with ensure the assistance of national and international scholars and interpretation experts;
    - Interpretation will be based on the most up-to-date information;
    - The plan will be peer-reviewed in order to ensure its accuracy;

    - The plan will be developed together with a project for infrastructures that will support its implementation (visitor center, services, paths, access roads, signage, panels, etc.).
- To develop an education plan incorporating the following principles:
    - The SBAH will collaborate with education specialists to develop educational activities and education kits for primary and high schools children, in particular with UNESCO to adapt the program 'World Heritage in Young Hands;'
    - The SBAH will engage with the Ministry of Education (MoEd), in charge of designing the school curriculum, to ensure that local schools can use educational kits, and that teachers are trained to use them;
    - Educational activities will be expanded to involve local communities, also with the establishment of "site days."
- To develop tourism management plans for Ur and Uruk that will:
    - Identify priorities and actions for site development, to be integrated in the management plans based on consultations with other stakeholders (e.g. tour operators, guides' associations etc.) and on the results of tourist/visitor surveys;
    - Ensure that development works are implemented by specialized contractors under the monitoring of the SBAH and with other stakeholders (e.g. tour operators, guides' associations throughout every phase of the works;
    - Establish patterns and means of circulation within the sites (paths, provision of transportation, access roads, parking, etc);
    - Define areas to be permanently or temporarily closed to visitation;
    - Establish rules and regulations concerning visitor and vehicle movements;
    - Develop guidelines for the sustainable use of the sites, including clear and strong use limitations to protect their values. The guidelines will also incorporate provisions and regulations concerning requests from public and private institutions and individuals for the use of the sites for public or private events;
    - Train tour guides, tour operators, media, tourism police;
    - Provide adequate disabled-friendly access to the services;
    - Add or dedicate an outdoor space for school visits;
    - Organize a competition for the design, planning and development of major works in order to identify the best architectural idea to be carried forward;
    - Relocate the parking at Ur away from the ziqqurat;
    - Avoid landscaping, introducing plants and other elements that are not part of the present environment;
    - Eliminate old or obsolete signs on and near the sites, and replace with consistent, unobtrusive signage. Its design should also be the subject of a competition, and be approved by the World Heritage Centre;
    - Provide technical assistance to MoTA, Tourism Board and other relevant stakeholders to develop promotional material and to promote the sites through the development of alternative tourism actions;
    - Develop visitor guidelines and regulations;

- Monitor visitation patterns in order to introduce eventual corrective measures;
- Conduct periodic visitor surveys to monitor visitor satisfaction and needs;
- Prepare official guidebooks and brochures with essential information and site plans;
- Consider the installation of temporary visitor facilities in order to welcome the first visitors while taking the time to study visitor needs, behavior and numbers, before developing projects for more permanent structures;
- Ensure the celebration of the International Day of Monuments and Sites, on April 18;
- Organize trainings for tour guides, tour operators and the media to ensure the correct dissemination and promotion of the sites' values;
- Periodically conduct visitor surveys in order to verify visitor satisfaction and use the survey findings to correct tourism strategies and actions;
- Based on the qualitative and quantitative studies developed as part of the conservation actions, evaluate the opportunity to establish visitors' management guidelines to reduce tourism impact on the conservation of the sites.

Awareness Building and Partnerships

- To build the awareness of the wider public about the values of the sites by:
  - Preparing medium and short term education and awareness strategies and actions equally targeting the adults and the youth;
  - Encouraging local NGOs and cooperatives to coordinate their activities with the SBAH, in order to develop a program of site-related activities that can eventually be formalized in events to be programmed yearly under SBAH supervision;
  - Formalizing agreements with local schools and universities to engage their students in site activities coordinated by the SBAH.
- To foster partnerships with local governments by:
  - Coordinating between Local Steering Committees for each site and the SBAH for the implementation of the management plans, and working towards securing the needed budgets from the governorates to implement these plans;
  - Conducting regular hearings/meetings with local governments so as to brief them about matters relating to the sites and potential upcoming economic opportunities within foreseen development initiatives;
  - Involving local governments in meetings, as well as in various cultural activities addressing awareness efforts to conserve the sites;
- To support community involvement by:
  - Involving local communities as well as school and university students in educational and community activities. These may take the form of lectures, provided in schools or on site by the SBAH, as well as of "Ur, Uruk, and Eridu days" to clean the

sites, help with monitoring activities, conduct tourist surveys and interviews etc;
    - Conducting periodic meetings with the local communities to inform them on issues concerning the sites and on economic opportunities arising in the context of development initiatives at the sites;
    - Encouraging local businesses and cooperatives to produce items inspired by objects and artistic motifs found at the sites.
- To ensure funding, fundraise, and encourage national and international projects by:
    - Developing budget estimates and yearly budget plans for all activities concerning the sites' conservation and development, to be incorporated in the management plans;
    - Working towards obtaining the necessary yearly budget from the central government in order to implement the provisions of the management plans;
    - Coordinating budget allocations between the MoTA and SBAH, as per respective competencies and responsibilities;
    - Seeking the participation of national and international NGOs and universities in joint projects in the fields of heritage conservation and research, as well as capacity building and any other activity that may help achieve the recommendations of the management plans and other specific plans prepared for the site.
- To support private and community-based initiatives by:
    - Ensuring constant liaison with the local community and other projects in the area, and fostering the development of assessments, surveys, studies and meetings in order to explore opportunities for culture-based economic development of the areas around the sites;
    - Considering the fragile conditions of the sites before organizing any events or activities within them prior to their consolidation and conservation;
    - Developing official logos and authorized local handicraft products. The logo will certify the product as having been locally produced;
    - Liaising with other economic development projects conducted in the areas around the sites by other organizations in order to explore partnership opportunities;
    - Involving the Iraqi Tourism Board and other concerned stakeholders in the marketing of the sites to attract tourists.

Table 1.4. Key Operational Objectives, Responsible Actors and Timeframe

Operational Objective	Responsible Actor(s)	Timeframe
Activate the **National Committee for World Heritage** (NCWH); invite ministries concerned by the property (MoWR, MoO, MoA, etc.) to be represented and approve its mandate.	MoE + MoTA	Mid 2015
Establish a **Team of Technical Advisors** (TTA) under the NCWH that will play the major coordination role within and between concerned government agencies at national and governorate levels.	NCWH	End 2015
Improve the **legal framework for the protection of archaeological sites** by applying pressure to speed up the update of the Antiquity and Heritage Law.	MoTA	End 2015
Develop and start implementing effective **outreach and communication strategy** amongst stakeholders in the property to ensure their effective participation in conservation efforts and the full development of a Vision Statement for the property.	MoE + MoTA	End 2015
Develop a **resource mobilization strategy** to ensure adequate funding for the protection, conservation and development of all components of the property on the basis of the Consolidated Management Plan.	NCWH MoE + MoTA	End 2015
Ensure that national, regional and local **development plans are compatible** with the values of the property.	MoE + MoTA +NCWH	Early 2016
Institutionalise **participatory local mechanisms** through the creation of Local Steering Committees.	MoE + MoTA	Early 2016
Develop a **Risk Preparedness Plan** in consultation with all stakeholders.	NCWH+MoE + MoTA	Mid 2016
Develop a **research strategy and plan** (including excavation) for the cultural components.	MoTA	Mid 2016
Develop and implement a **Health and Safety Risk Plan** for the cultural components.	MoTA + Civil Defence	Mid 2016
Improve on-the-ground **protection of cultural components** by marking boundaries and buffer zones.	MoTA + Local Governments	End 2016
Finalise **training of 50% of concerned staff** in all relevant aspects of conservation, monitoring, and risk preparedness.	MoE + MoTA NCWH	End 2016
Develop and start implementing detailed **conservation plans** for all cultural components of the property ensuring compliance with guidelines from WH and ICOMOS.	MoTA + NCWH	End 2016
Attain **minimum required management structures** (Site Management Teams, SMTs) for all the components.	MoE + MoTA	Early 2017
Improve planning process(es) by establishing a **permanent specialised presence of SBAH** inside planning committees at all levels.	MoTA	Early 2017

Develop an **integrated research strategy** for all components (natural and cultural) of the property.	MoE + MoTA	Mid 2017
Establish a **monitoring and maintenance regime** for all cultural components.	MoTA	Mid 2017
Finalise **training of 100% of concerned staff** to establish full technical and professional capabilities for the management contingent (SMTs) of all the components of the property.	MoE + MoTA NCWH	End 2017
Organize local, national and international **outreach and awareness raising campaigns** to reduce the negative impacts of development activities in the property.	NCWH MoE + MoTA	Early 2018
Incorporate socio-economic guidelines in the Management Plan of the property.	MoE + MoTA +NCWH	End 2018
Establish **minimum required infrastructures** at the three cultural components, particularly Ur and Uruk, including for visitors (signage and temporary facilities).	MoTA	End 2018
Finalise a **tourism management plan** including a plan to train guides.	MoE + MoTA +NCWH	**Mid 2019**
Develop **education and interpretation plans and material** for all components and values of the property.	MoTA + MoE + MoC + MoEd	**End 2019**

Chapter II. Management Plan of Uruk Archaeological City

Component Part of

The Ahwar of Southern Iraq: Refuge of Biodiversity and Relict Landscape of the Mesopotamian Cities

Property Nominated by the Government of Iraq in January 2014 for Inscription on the World Heritage List

CONTENTS

Section I. General Overview of Uruk Archaeological City

Uruk Archaeological City component (modern name Warka) lies about 80 km northwest of ancient Ur and 15 km east of modern Samawah, the administrative center of the Governorate of Muthanna (Map 2.1).

Uruk is registered in the Official Gazette n° 1465 of 17 October 1935 as an archaeological site, and is protected under article 7 of the Iraqi Law of Antiquities and Heritage n°55 of 2002. Registration in the Official Gazette includes the definition of the site's official boundaries and buffer zone. These have been adopted as the boundaries and buffer zone of Uruk as a component of the proposed World Heritage property thus encompassing all of the site's archaeological remains.

Covering c. 541 ha, Uruk is one of the largest archaeological sites in southern Iraq. The buffer zone covers an additional c. 292 ha. The maximum extent of the component is 3 km north-south and 2.5 km east-west.

Table 2.1. Centre Point Coordinates of Uruk Archaeological City Component

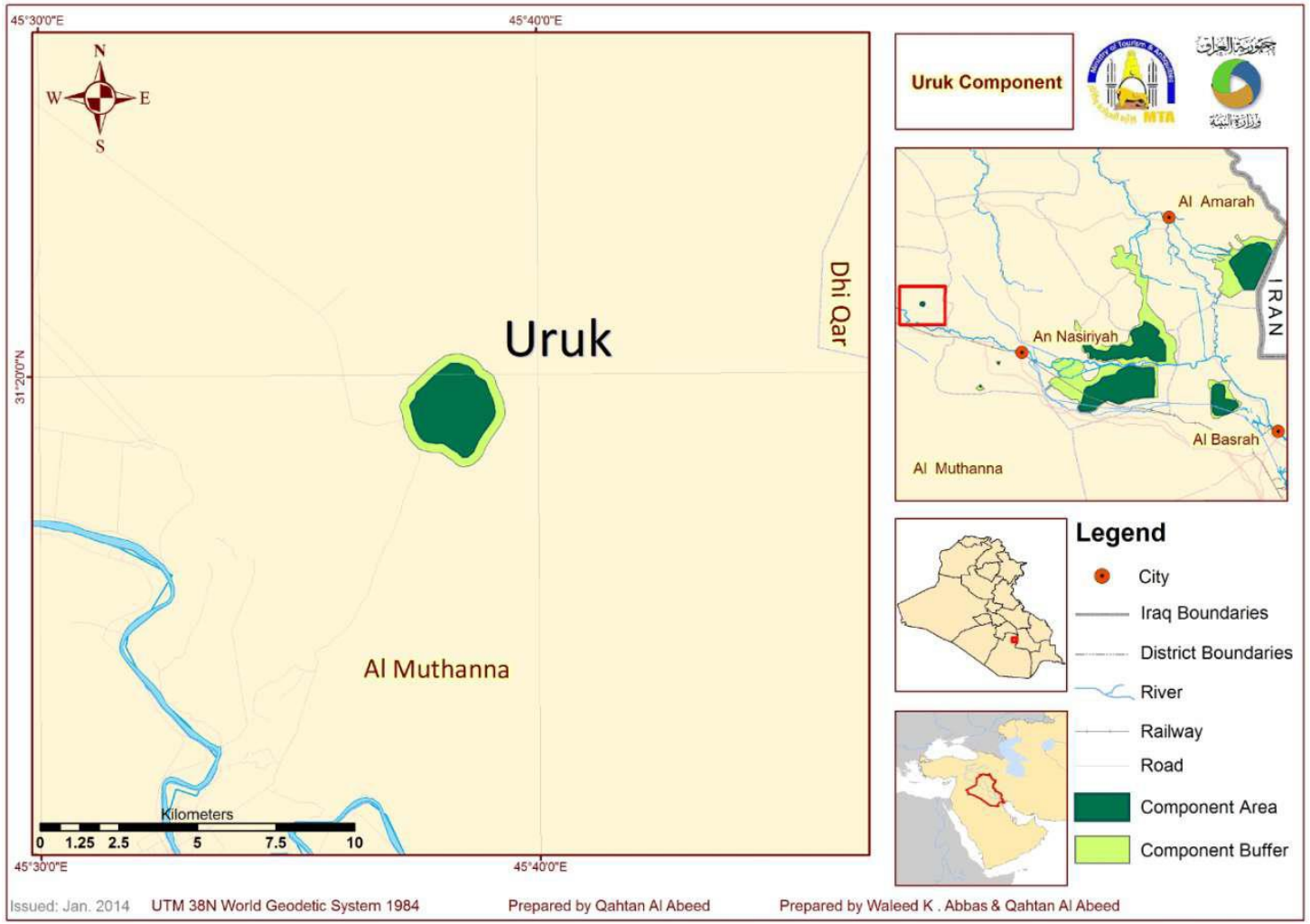
Component	Governorate	Coordinates of the central point
Uruk Archaeological City	Muthanna	N 31 19 27/E 45 38 14

Table 2.2. Size of Uruk Archaeological City Component and its Associated Buffer Zone

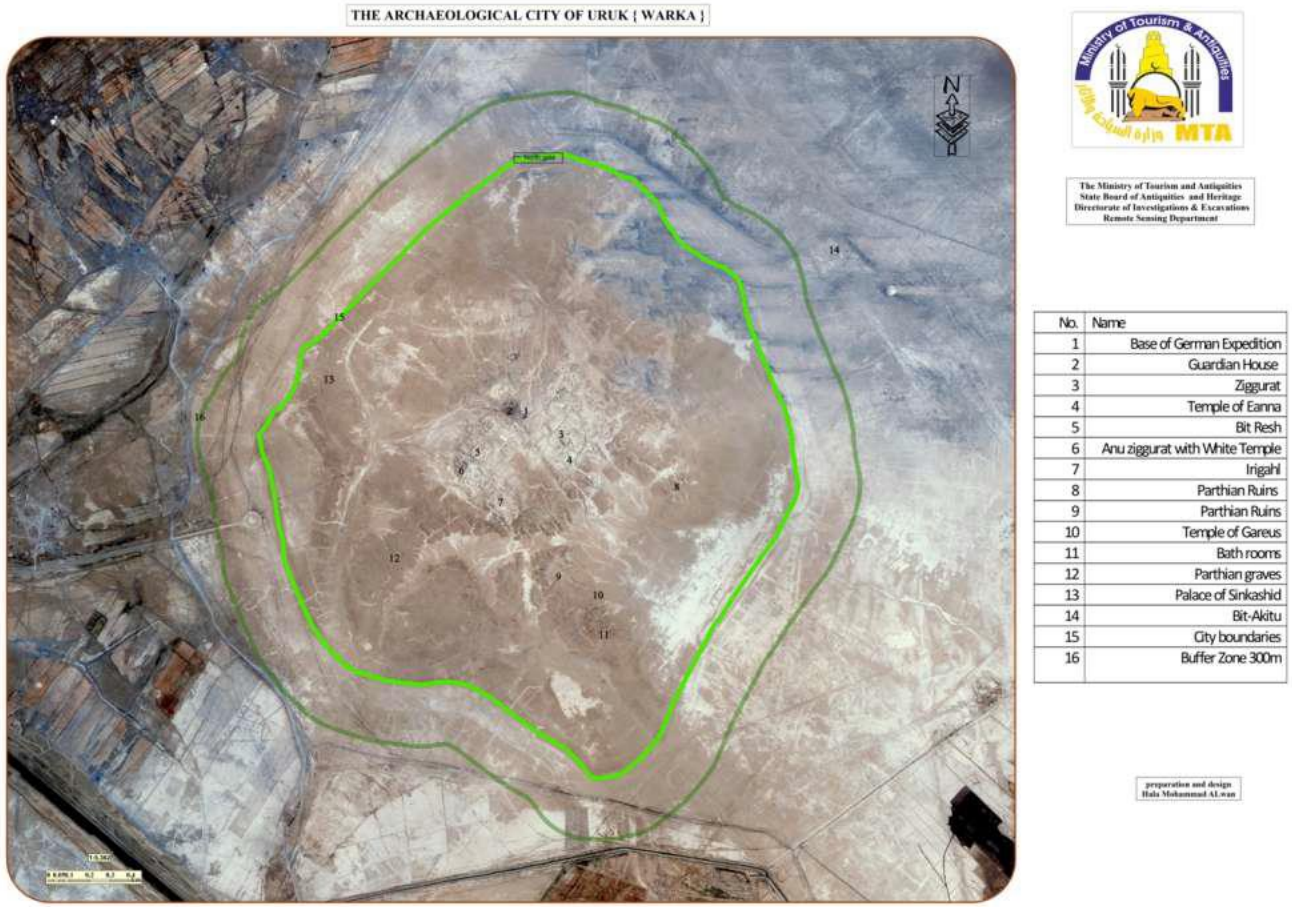
Component	Area of component (ha)	Area of buffer zone (ha)	Governorate
Uruk Archaeological City	541	292	Muthanna

The site is contained within the ancient city wall. It consists of a large area in the center of the city where different sanctuaries are situated and several living quarters inside the city. They are separated from each other by ancient canals. Additional areas inside the city were used as gardens, fields and production areas (Plan 1).

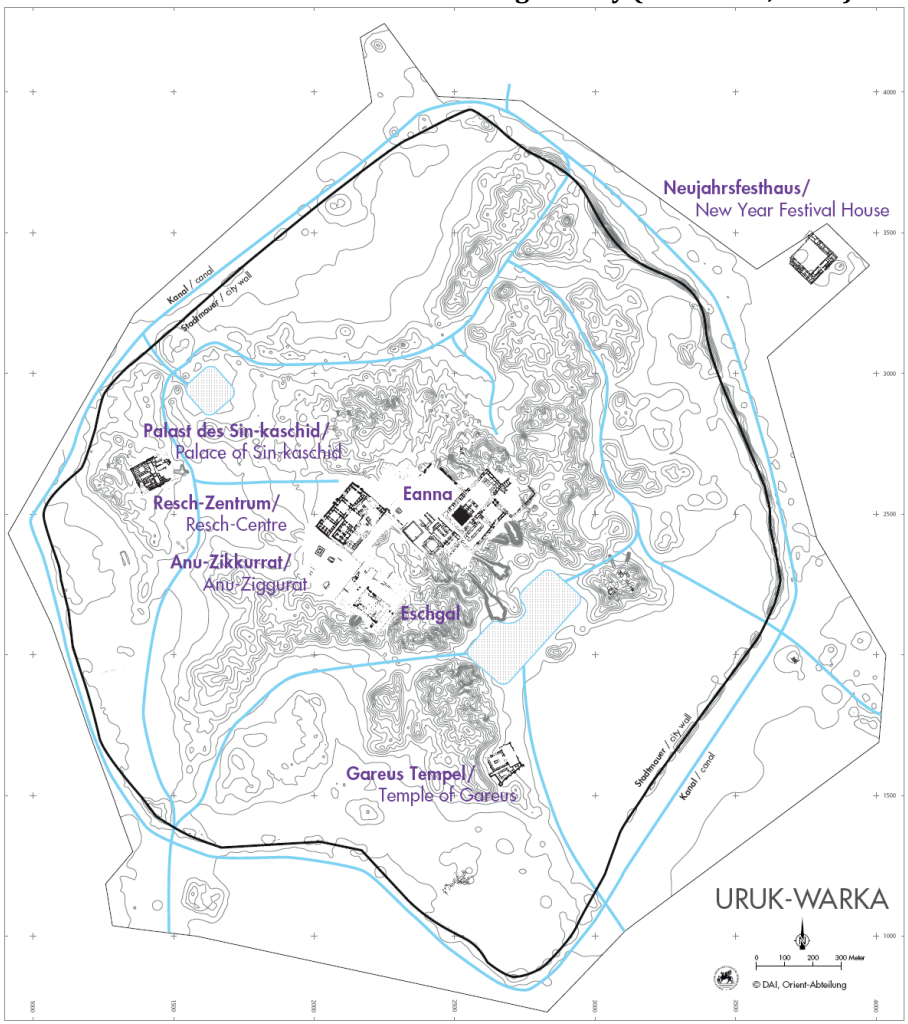
Map 2.1. Uruk Archaeological City Component



Picture 2.1. Aerial View of Uruk Archaeological City Component



Plan 2.1. Main Features of Uruk Archaeological City (M. van Ess, 2015).



Section II. Significance

Uruk was originally situated southwest of the ancient Euphrates River bed, now dry, and on the edges of a marsh. It was the biggest settlement in ancient Iraq and the main force of urbanization in southern Mesopotamia in the 4th millennium BCE. Its archaeological remains illustrate the several phases of the city's growth and decline, the architectural evolution and sophistication of public buildings, and the spatial organization of a vast and complex city with its sacred precincts encircling monumental temples – including two ziqqurats, residential quarters organized by professions, and a canal system that recently earned the city the name of "Venice in the desert". Uruk developed a full-time bureaucracy, military, and stratified society where writing first came about. The earliest texts known to humanity were found in the Eanna, the temple precinct of the goddess Inanna. *The Gilgamesh Epic*, the earliest known literary text, also originated in Uruk, likely as a reflection of the city's power and influence which extended to the whole Mesopotamian world and far beyond.

Uruk's history covers four millennia from the end of the Ubaid period (c. 3800 BCE) to the late Sassanid period (7rd century CE). However its maximal expansion dates to the end of the 4th millennium when the city covered a surface of around 230 ha and was known for its large population and monumental buildings. During the first half of the 3rd millennium, it was surrounded by a double circular mudbrick wall of 9.8 km restored several times. The most outstanding buildings of which remains are still visible today were excavated and recorded by German teams working on the site throughout the 20th century. The legibility of the site is however highly complex because older buildings were recycled into newer ones, thus blurring the layers of different historic periods.

The site is composed of three tells, the Eanna district, the Anu District (or Kullaba), and Irigal, where archaeologists have discovered multiple cities of Uruk built atop each other in the following sequence:

- Uruk XVIII or Eridu period (c. 5000 BCE); the founding of Uruk
- Uruk XVIII-XVI or Late Ubaid period (c. 4800–4200 BCE)
- Uruk XVI-X or Early Uruk period (c. 4000–3800 BCE)
- Uruk IX-VI or Middle Uruk period (c. 3800–3400 BCE)
- Uruk V-IV or Late Uruk period (c. 3400–3100 BCE); The earliest monumental temples of Eanna District are built.
- Uruk III or Jamdet Nasr period (c. 3100–290 BCE); The 9.8 km city wall is built.
- Uruk II
- Uruk I

The city was formed when two smaller Late Ubaid period settlements merged c. 3800 BCE. The temple complexes at their cores became the Eanna District and the Anu District dedicated to the goddess Innana and the god Anu respectively (see maps of the Anu and Eanna Districts in the Annexes). The Anu District was originally called “Kullaba” prior to merging with the Eanna District. Kullaba dates to the Eridu period when it was one of the oldest and most important cities of Sumer.

The Eanna District was composed of several buildings with spaces for workshops, and it was walled off from the city. By contrast, the Anu District was built on a terrace with a temple at the top. The rest of the city was composed of typical courtyard houses, grouped by profession of the occupants, in districts around Eanna and Anu. Uruk was extremely well penetrated by a canal system recently identified through magnetometry, which archaeologists have described as “Venice in the desert.” This canal system flowed throughout the city connecting it with the maritime trade on the ancient Euphrates River as well as the surrounding agricultural belt within and around lowland marshes.

Uruk continued as an important city under the Assyrian, neo-Babylonian, Parthian and Persian empires but never again a primary political center. However its role in Mesopotamian culture and religious tradition is constantly acknowledged by subsequent rulers who all felt it important to restore, expand or contribute to cultic architecture in Uruk as part of their priestly duties.

Section III. Mains Archaeological Features

The German Archaeological Institute (with financial support by the German Research Foundation) has been conducting excavations at Uruk since 1928/29. Below is a description of the main features of the site on the basis of the most recent German findings, as provided by Dr. Margarete van Ess, Director of the German Archaeological Institute.

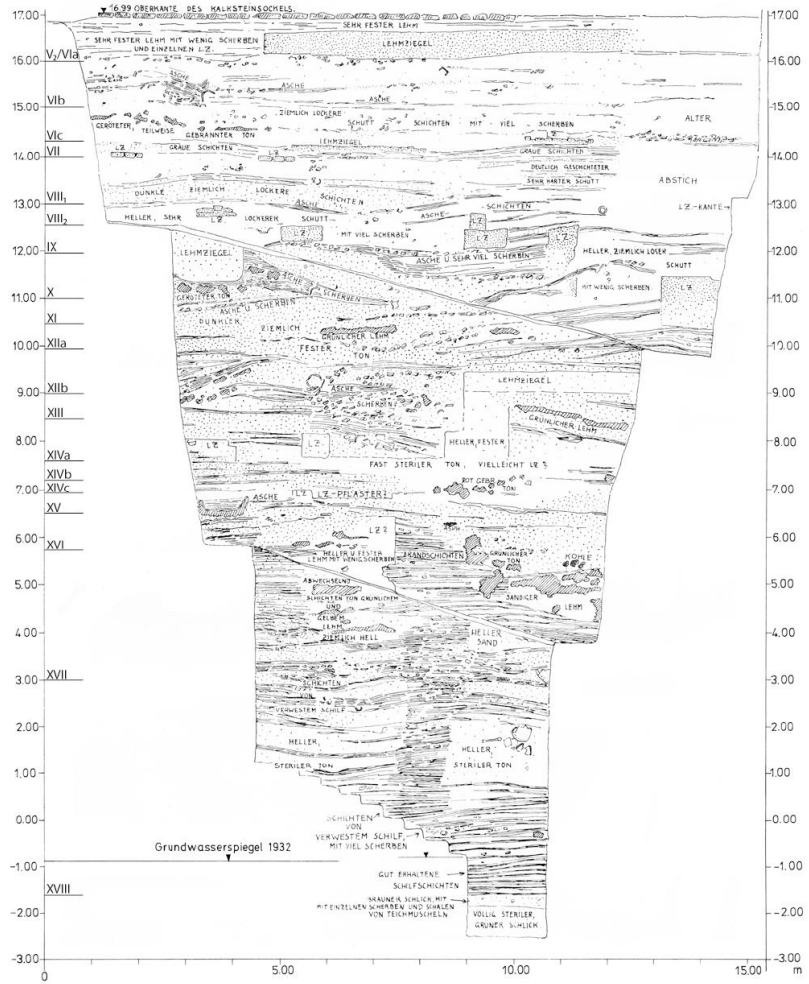
In two deep soundings the oldest settlement levels were reached at c. + 1 m above sea level (asl) (Plan 2.2) or -1.9 m local Warka height[3]. This level dates into the Late Ubaid Period (IV), end of the 5th millennium BC. All these low levels are covered with later levels in the whole city. So, the plain level at the border of the city today is at c. + 10 asl. In the center, in the Eanna precinct, at least 16 levels were built on top of this earliest settlement.

They are not studied yet except for the very small area in the "Deep trench" of Eanna. On top of these 16 levels lays the oldest level that was reached by the excavations of the German mission. This level is called "Uruk archaic VI"-level and dates into the "Late Uruk Period" around 3500 BC. The Uruk archaic VI-levels are at a height of c. + 15 m local Warka height. The "Stone Cone building" (or "Mosaic temple") belongs to this level but is situated c. 300 m further west and on a higher level: c. + 18,5 m local Warka height.

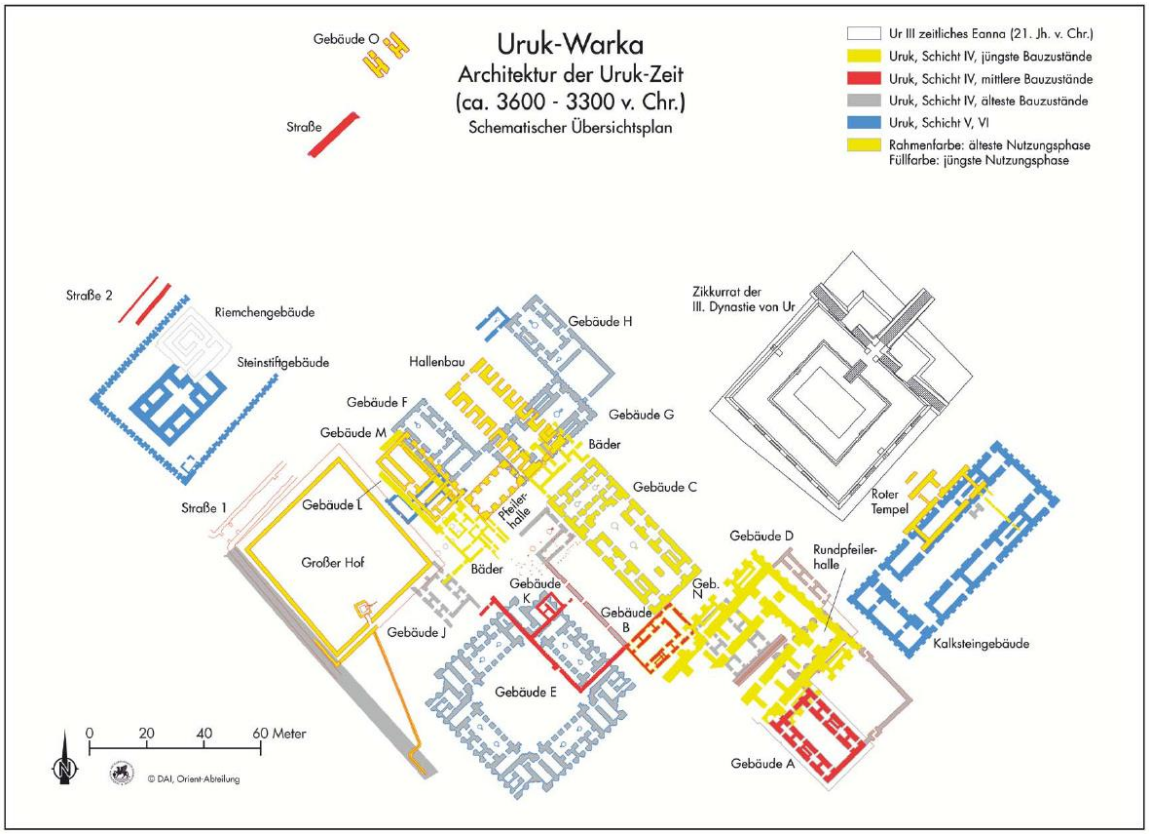
On top of the Uruk archaic VI level which is excavated only in the "Deep trench" and in the area of "Stone Cone building", 5 levels of the younger "Late Uruk Period" were excavated (Plan 2.3). Most of them were preserved only in fragments and only in a few rows of mud brick. These fragments, however, are sufficient to draw reconstruction plans and to give an interpretation how the buildings perhaps looked like. All buildings were built of mud bricks and are very fragile. With the exception of the "Pillar Hall" they were covered with earth again. Their upper level is at c. + 20 m local Warka height which in some parts of the Eanna area is approximately the today's surface (this needs a study, however).

[3] All excavation plans of Warka are levelled according to a local Warka height which is 2,9 m below sea level. A local elevation had to be used because knowledge about the height of the sea level became known to the German expedition very late. The main measuring point for the local system is the stone block in the courtyard of the expedition house.

Plan 2.2. Soundings at Uruk Archaeological City (M. van Ess, 2015)

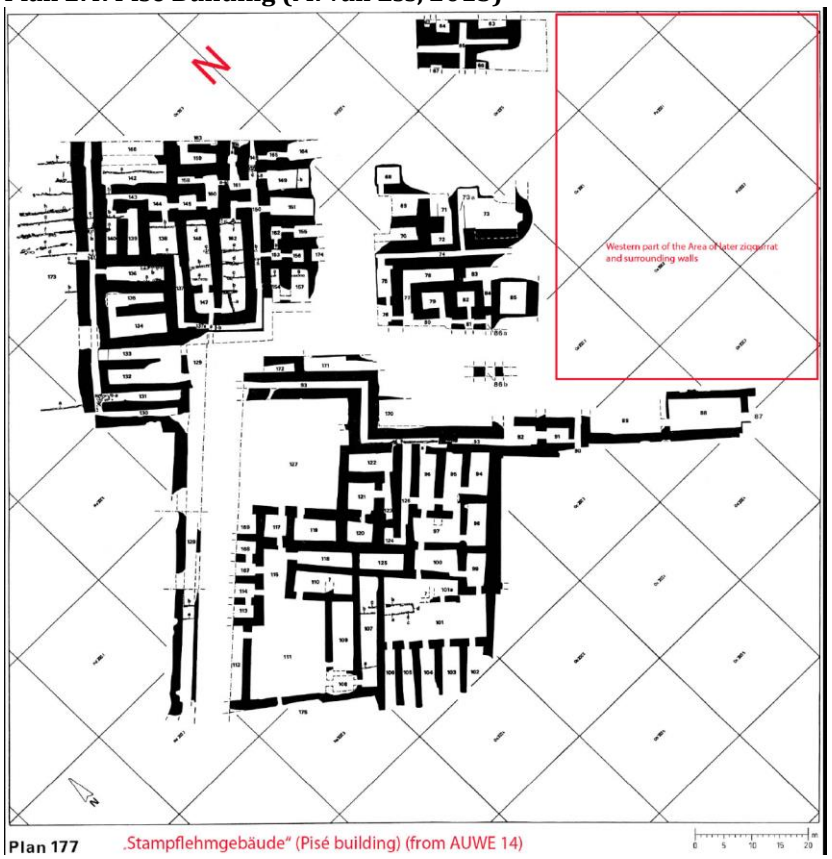


Plan 2.3. Architecture of the Successive Uruk Periods (M. van Ess, 2015).



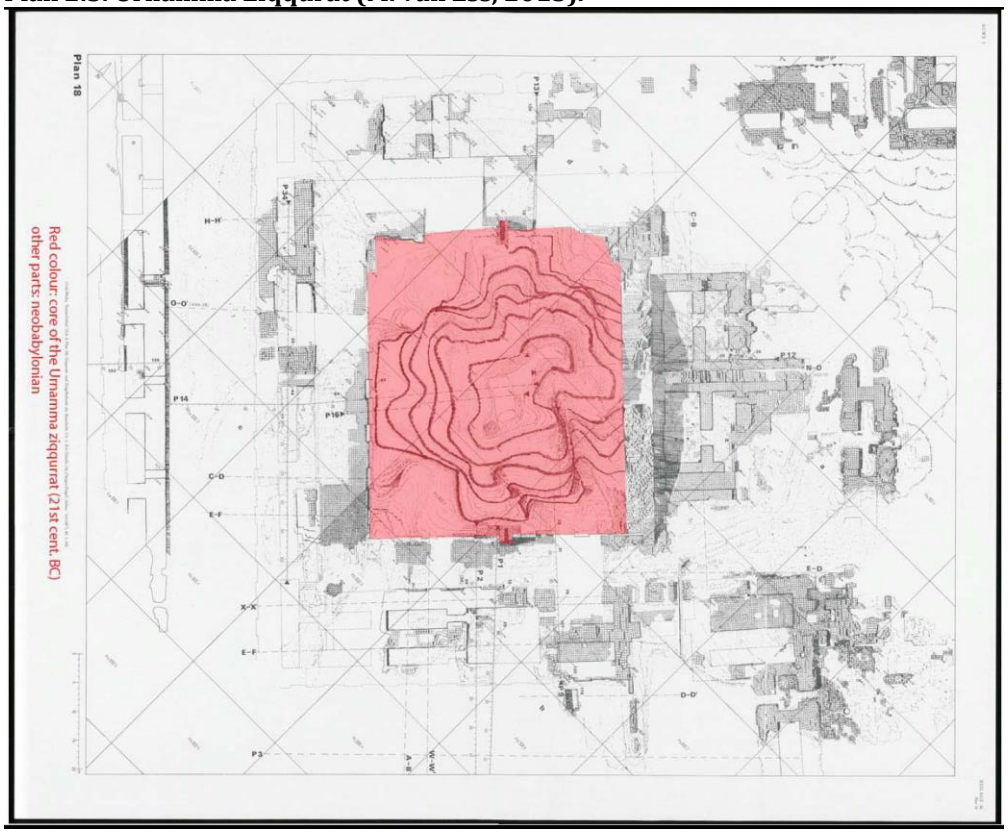
On top of this level of the Late Uruk Period there were preserved in some parts of the Eanna 8 levels of the "Uruk archaic III and In- levels which belong to the Gemdet Nasr Period (Uruk Ill) and the Early Dynastic Period (Uruk I). Most of its buildings were badly preserved and have been removed after documentation in order to study the architecture of the Uruk-Period underneath. The youngest building of these periods is the "Stampflehmgebaude" (Pisé building/Toof building), a very large building complex that is still visible to visitors (Plan 2.4). It is only preserved in its deep foundations, which were constructed in pisé technique, so the former height of its floor level is not known. It dates to the end of the Early Dynastic Period or the Early Akkadian period.

Plan 2.4. Pisé Building (M. van Ess, 2015)



The "Stampflehmgebaude" was destroyed when king Urnamma built the Eanna ziqqurat which is still preserved in its core. Urnamma dug ca. 1.5 m deep in order to create a foundation pit for the ziqqurat and by this destroyed parts of the temple terraces of the Early Dynastic Period, which are situated underneath the Urnamma sanctuary. The floor level of the Ur Ill period is at c. 22,5 m local Warka height, the preserved top of its core at + 36,5 m local Warka height. This sanctuary was altered in the old Babylonian period, in the Kassite Period by Karaindash and Kurigalzu (I or II), in the Neoassyrian/babylonian Period by Mardukaplaiddina II and Sargon II as well as by Nebukadnezar and Nabonid and later on by the Achaemenid king Kyros the Great (Plan 2.5).

Plan 2.5. Urnamma Ziqqurat (M. van Ess, 2015).



The Neoassyrian/ Neobabylonian kings considerably changed the plan of the Ur Ill ziqqurat. In the Seleucid period it was completely renewed for the last time. Most of these late changes are a victim of the erosion of the last 2000 years. There were, however, enough remains at low level to be able to reconstruct the different buildings and to give an interpretation of its development. All in all, in the Eanna area we count 36 levels on top of each other. (Van Ess, 2015 Report to SBAH)

Section IV. Site Documentation

According to a report prepared by Dr. Margarete van Ess for the SBAH (2015), the scientific results of the excavations conducted by the German Archaeological Institute at Uruk have been published in:

- Short English reports sent to the SBAH (and its predecessor) during the excavation seasons. Usually they are 1-2 pages long and report about the on-going excavation work. Most of the interpretation given there is outdated.
- Preliminary reports about each excavation season. Except for the lastest ones, they were published in the so-called "UVB" which is the abbreviation of "Vorlaufiger Bericht uber die von dem Deutschen Archaologischen lnstitut aus Mitteln der Deutschen Forschungsgemeinschaft unternommenen Ausgrabungen in Uruk-Warka" (Preliminary report about the excavation at Uruk-Warka, carried out by the German Archaeological Institute with financial support by the German Research Foundation).
  This title changed somehow from the early reports to the later ones. This is why usually everybody only uses the abbreviation "UVB". The first report was published in 1930 (First Excavation season 1928/29) and the latest one was published in 1983 (31st/32nd excavation seasons 1973 and 1973/74). After publication of the final reports (see below) many elements published in UVB were found to be out-dated.

- The preliminary report about the 33/34. excavation season 1975/76 and 1976/1977 was published by A. Cavigneaux - U. Finkbeiner - U. Seidl- H. H. Siewert, Uruk 33/34 in: Baghdader Mitteilungen 22, 1991,l- 163.
- The preliminary report about the 39th excavation season 1989 as well was published in Baghdader Mitteilungen: R. M. Boehmer - B. Bock - J. Boessneck - M. van Ess - G. Meinert - L. Patzelt - M. Peter-Patzelt, Uruk 39 (1989), Baghader Mitteilungen 24,1993,3 - 126.

- Other excavation seasons were published as final reports only:
- Jordan - C. Preusser, Uruk-Warka, Wissenschaftliche Veroffentlichungen der Deutschen Orient- Gesellschaft 51 (1928) about the so-called "season 0" in 1912/13.
- R. M. Boehmer, Uruk. Kampagne 38.1985, Ausgrabungen in Uruk-Warka. Endbericht l(1987) about the excavations in 1985

- U. Finkbeiner, Uruk. Kampagne 35-37.1982-1984. Die archaologische Oberflachenbegehung (Survey), Ausgrabungen in Uruk-Warka. Endbericht 4 (1991) about the survey inside the town.

- Research work of the 40th season in 2001/2002 has not been published yet because it was interrupted by the war and is not completed. Main reason was that the geophysical survey carried out during that season shows very clear details of the

architecture and archaeological structures and the German team was in fear of aimed looting. The team hopes to complete this research soon and publish it accordingly.

- The final publication of the archaeological results is nearly completed. They are published in two series:
  - The series "Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka" which started in 1936 and has 17 volumes. This series includes the sub-series about the Uruk period texts which were published as "Archaische Texte aus Uruk" edited by H. J. Nissen.
  - In the series "Ausgrabungen in Uruk-Warka. Endberichte" which was initiated by R. M. Boehmer in 1987. In the meantime, 23 volumes appeared with final reports about the architecture, the small finds, tombs, and texts from Uruk. Another 6-7 volumes still need to be completed.

- For other reports see the bibliography in U. Finkbeiner, Analytisches Register zu den Grabungsberichten (1993).

A new topographic map of the site was produced by the German Archaeological Institute in the 1980's using digital technologies, amended by data from high-resolution satellite imagery of 2005. Since 2007, the project "Visualization of the ancient city of Uruk" also conducted by the German Institute, is producing reconstructions and 3D digital models of monuments and the topography in the city.[4] At the moment, the German Institute is transferring all plans (vectorization of c. 500 relevant items), high resolution historical air photography and satellite imagery into the Uruk GIS (using QGis).

The German Institute develops conservation planning for those monuments that are visible above ground by collecting all available plan and photo-documentation as well as descriptions regarding the state of research and preservation. It prepares a damage documentation project to be carried out in Uruk in order to develop detailed conservation and preservation measures in cooperation with SBAH.

[4] http://www.dainst.org/projekt/-/project-display/50247?p_r_p_1690909578_redirectURL=http%3A%2F%2Fwww.dainst.org%2Fprojekt%2F-%2Fproject-display%2F51076%3Fp_r_p_1690909578_redirectURL%3Dhttp%253A%252F%252Fwww.dainst.org%252Fmeldungen#_LFR_FN__projectdisplay_WAR_daiportlet_view_research

Section V. Planned Research

The German Archaeological Institute intends to return to the site for more research under the direction of Dr. Margarete van Ess, but because of security issues, it has not been able to be in the field since 2002. Activities in the meantime have concentrated on the publication of older excavations (39 campaigns were conducted between 1912 and 1989, plus 2 in 2001-2002)[5], exhibitions (such as the Uruk exhibition at the Pergamon Museum in Berlin in 2013), and 3D digital reconstructions of excavated structures.[6]

The future research will start with a survey of the suburbs of Uruk (3 km radius) which will add to an older survey of the Uruk Countryside. By this, detailed plans of the buffer zone will be produced. In addition, research will focus on parts of the center where pre-1967 excavations exposed large buildings. These buildings were re-buried for long-term preservation. It is planned to uncover parts again in order to evaluate the state of preservation of the buildings and to provide proper data for a presentation concept given the central location of the area and possibility to become a focus point for visitation.

[5] First soundings at Uruk were undertaken by William K. Loftus in 1853. Scientific excavations in Uruk started in 1912/13 and were continued between 1928-1939, 1954-1977, in 1982-1985, 1989, 2001-2002 (van Ess, 2015 report to SBAH)

[6] http://www.dainst.org/projekt/-/project-display/51076?p_r_p_1690909578_redirectURL=http%3A%2F%2Fwww.dainst.org%2Fmeldungen

Section VI. Site Protection

The security network that is operational at Uruk consists of the Antiquity and Heritage Police, the inspectors of the Muthanna AHD as well as the guard living on-site with his family.

Site Security and Policing
The site of Uruk is surrounded by a new fence (barbed wires) provided by the Government of Japan after 2003 in order to replace a damaged and partly stolen one which was put in place by the Iraqi Department of Antiquities in the 1970s. The fence follows the site's boundary and prevents most people from trespassing; concrete beams laying on the ground effectively stop cars from driving around inside the site.

A small station of the Antiquity and Heritage Police, situated in the buffer zone, plays an efficient role in protecting the site from trespassers and looters through monitoring and patrolling of the site.

Site Vigilance
Site vigilance consists mainly of the monitoring activities of the guard. In the case of special groups, these are normally escorted by inspectors from the local AHD and are taken around the site in a systematic manner.

Challenges
- Absence of the suitable infrastructure to control visitor access along very well defined paths away from sensitive and unstable areas.
- The fence has not been a complete deterrent against trespassing. The installation of security cameras is not advised, at least not for the initial phase of the project, since they require specialized maintenance that may not be available for some time at the site.
- Absence of a health and safety risk assessment to make sure that no harm incurs on visitors during their visit to the site.
- No available site log where infringements on the integrity of the site are recorded and later on addressed as part of an overall strategy to protect the site and its infrastructures.

Section VII. Other Factors Affecting the Site

Lack of regular maintenance compounded by **erosion** (in particular strong winds), limited vegetation growth (especially in areas where water and moisture accumulate), and **uncontrolled access** over exposed and precarious ruins by some visitors, contribute to the deterioration of the site.

Development Pressures

A dig house in cement blocks and a baked brick building housing the site guard and his family are located inside the property.
It may keep its function, provided that it does not disturb the archaeology and is not used as store-rooms for antiquities excavated on site or the region. Furthermore, a small Station of the Antiquity and Heritage Police is situated in the buffer zone. There is no electricity or water network inside the site. Electricity for the modern buildings is provided by generators, and water delivered by tanks. The site has not experienced any war-related damages. An agricultural village is situated just outside of the buffer zone however no activities are encroaching on the buffer zone.

Table 2.3. Key Threats to the Conservation of Uruk Archaeological City

Threats	Level
Infrastructure Development	Low
Agriculture Expansion	Medium
Mining/oil	Very low
Solid Waste	Very low
Climate Change	Very low
Desertification	Very low
Military/security activities	Very low
Natural Catastrophes	Very low
Tourism and Visitor Pressure	Very low
Lack of regular maintenance/ conservation interventions	High
Improper conservation interventions	Medium
Water and/or wind erosion	Very High
Invasive vegetation growth	Medium
Uncontrolled access/trespassing	Medium

Visitation

Very few visitors access the site: they usually come as part of delegations. No school trips are presently organized there. Signage was installed by the SBAH in front of major monuments.

Section VIII. Proposal for Conservation Interventions

In March 2014, Dr. Margarete van Ess, on behalf of the German Archaeological Institute, presented a preliminary proposal for further work at Uruk, including both conservation and new excavations on the basis of an assessment of the site conditions. It received the approval of the MoTA. In February 2015, the German Archaeological Institute presented a more detailed report on the proposals for the conservation component. It is reproduced below.

Eanna Sanctuary

The Eanna sanctuary is situated in the center of the town. The sanctuary was devoted to the goddess lnanna at least from the 3rd millennium BC onwards and was in use as such until the end of the Seleucid period in the 2nd century BC. Settlement in this area, however, is much older and comprises the famous Uruk period buildings which are now covered by earth.

Still visible is the Eanna Ziqqurat built by king Urnamma in the 21st century BC which was renovated and altered by the Kassite, the Neobabylonian, the Achaemenid and the Seleucid kings. In addition, still visible is the so-called "Stampflehmgebaeude" of the late Early Dynastic or Early Akkadian period (c. 25th century BC) and the remains of the "Pillar hall" as well as part of the "Stone cone building" ("mosaic temple"). In Plan 2.3 the "Pillar hall" is marked in yellow with red lining (Pfeilerhalle) and the "Stone cone building" in blue (Steinstiftgebaude).

Most of the Uruk period buildings are covered with earth for protection. Most of them were preserved only for some rows of mud bricks which would have been deteriorated soon without such kind of protection. This is why in some parts of the Eanna show very flat surface areas today.

Eanna Ziqqurrat

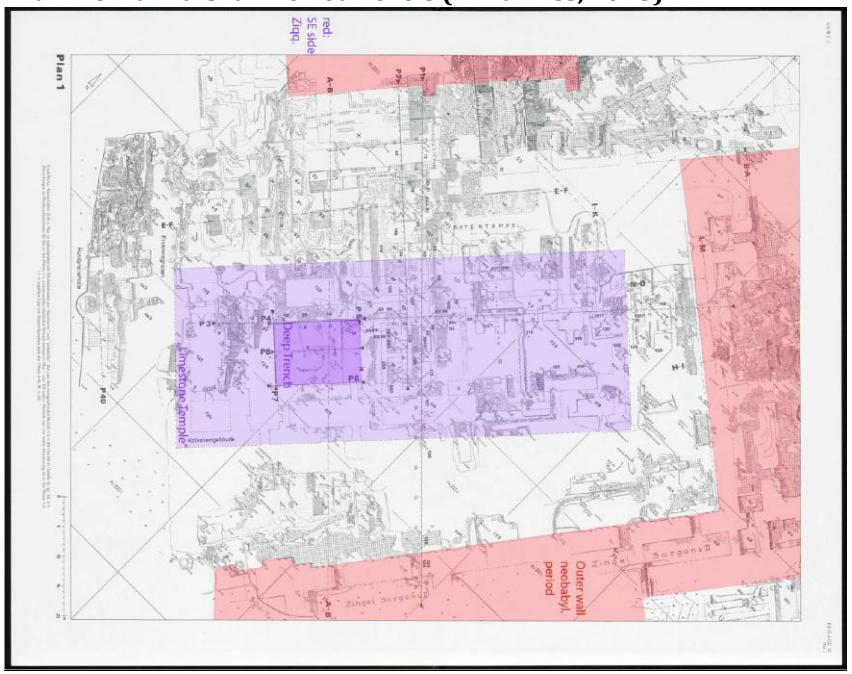
The Eanna Ziqqurrat was erected by Urnamma using mud bricks (contrary to the Ziqqurrat in Ur). This is the reason why within the last 2000 years its former second platform and the temple on top eroded completely. When excavations started in Uruk in the 20th century, only the core of the first platform as well as the facades of the ziqqurrat were preserved. In addition to the parts built by Urnamma, the staircase built by Marduk-apla-iddina II. (8th cent. BC) as well as remains of the Seleucid re-shaping is preserved as well as parts of the surrounding courtyard and its walls. Today, the core of the ziqqurrat is still in more or less the same shape as it was in the beginning of the 20th century. It however suffers from visits by tourists and the weather, and will deteriorate tremendously in case of larger numbers of visitors. It therefore needs a protection concept that will not destroy the important archaeological buildings at the foot of the ziqqurat and, will explain a little bit better its original shape. This is one of the most difficult tasks of the conservation requirements in Uruk and

needs a team of archaeologists and architects familiar with all excavation details of the Ziqqurat, as well as conservation specialists for mud brick structures.

The following steps will be necessary:

- Partial cleaning and detailed documentation of the actual state of preservation of the core of the ziqqurat. Evaluation of the state of preservation of the facades. Comparison between the documentation drawn in the 1930's and today. This will lead to a proper damage mapping;
- Verification of the archaeological structures at the foot of the ziqqurat. This needs to include partial excavation because the fragile Uruk period structures were covered by earth in the 1960's. Evaluation whether this cover was useful;
- Mapping of the wadis in order to understand where rain water is moving today;
- Evaluation of all building materials and techniques used for the construction of the ziqqurat and the surrounding buildings in order to develop a proper conservation concept;
- Development of a well-directed rain water deviation system in order to protect the ziqqurat as well as the structures at the foot of the ziqqurat (including those covered by earth);
- Development of a workflow for constant maintenance;
- Development of a presentation concept that respects the archaeological remains on the one hand and explains the building to the public on the other hand.

Plan 2.6. Eanna Uruk Period Levels (M. van Ess, 2015).



In order to decide about future preservation and information about the famous Uruk period levels situated mainly on the southeastern and southwestern side of the ziqqurat and covered with earth, several small excavations are needed in order to evaluate the state of preservation of the structures.

The expected problem will be that the earth covering the structures was softer than the remains of the archaeological structures and might have been partly washed away by rain water creating gullies.

A presentation of the Uruk Period buildings to the public will not be possible because they were preserved only up to a few rows of mud bricks (sometimes only one to three rows and in very small fragments only) which will be destroyed very soon if left exposed to the weather and to the effect of larger numbers of visitors. It is therefore preferred to present the documentation and a 3D reconstruction of these buildings in a tourist center outside the city.

"Pillar Hall"
The remains of the "Pillar hall" are still visible in some parts over ground: its building platform is still preserved as well as parts of the clay cone mosaics of its pillars. These remains belong to the best excavated components and should therefore receive better protection.

The following steps will be necessary:

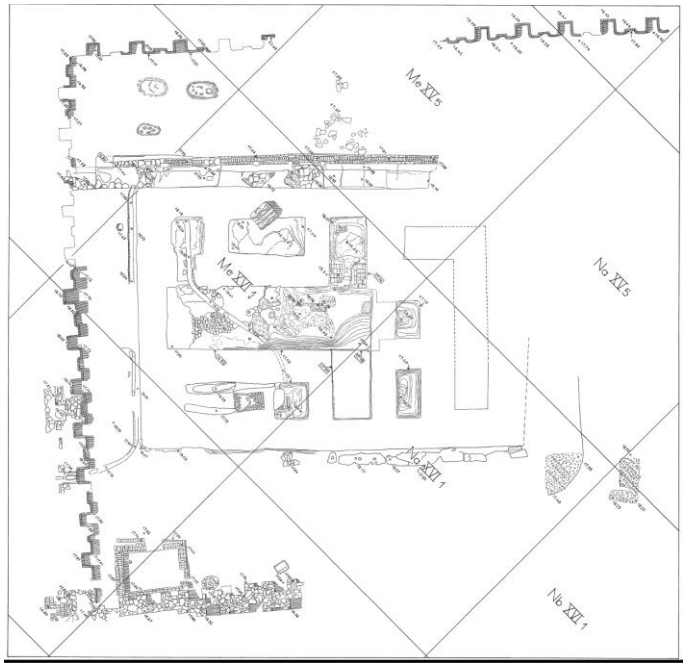
- Cleaning of the remains and documentation of all preserved parts by trained archaeologists. Detailed comparison with the documentation of the 1950's when the hall was excavated;
- Discussion and decision to be made about whether or not there is a way to present the remains to the public. Depending on this, a presentation concept needs to be developed for the whole area that could be installed next to the Pillar Hall: plans, photographs/reconstruction drawings and written explanation for further information.

Stone Cone Building ("Mosaic Temple")
The "Stone cone building", built c. 3500-3400 BC, is not well preserved because it was destroyed already towards the end of the 4th millennium BC by the so-called "Riemchengebaeude". Only some fragments of its wall and its floor could be excavated as well as a lot of details about how the building was constructed. Especially the latter is highly interesting because for construction an artificial stone (similar to concrete) was used. In addition, for the decoration of the walls different colored stone cones were used which are (archaeologically) well preserved for the walls surrounding the former courtyard of the building. At this spot, it would be possible to explain this special decoration system of the Uruk Period. The stone cone mosaics, however, suffer from erosion at the moment as well as from visitors who collect stone cones as a souvenir.

The following steps will be necessary:

- Cleaning of the remains and documentation of all preserved parts by trained archaeologists;
- Detailed comparison with the documentation of the 1950's when the structure was excavated;
- Because of the very fragmentary state of the building, a general concept for the presentation of the structure is first needed, which should explore the idea of how to explain the building from the few preserved remains without destroying them by reconstruction. The concept should be developed in close cooperation with conservation specialists.

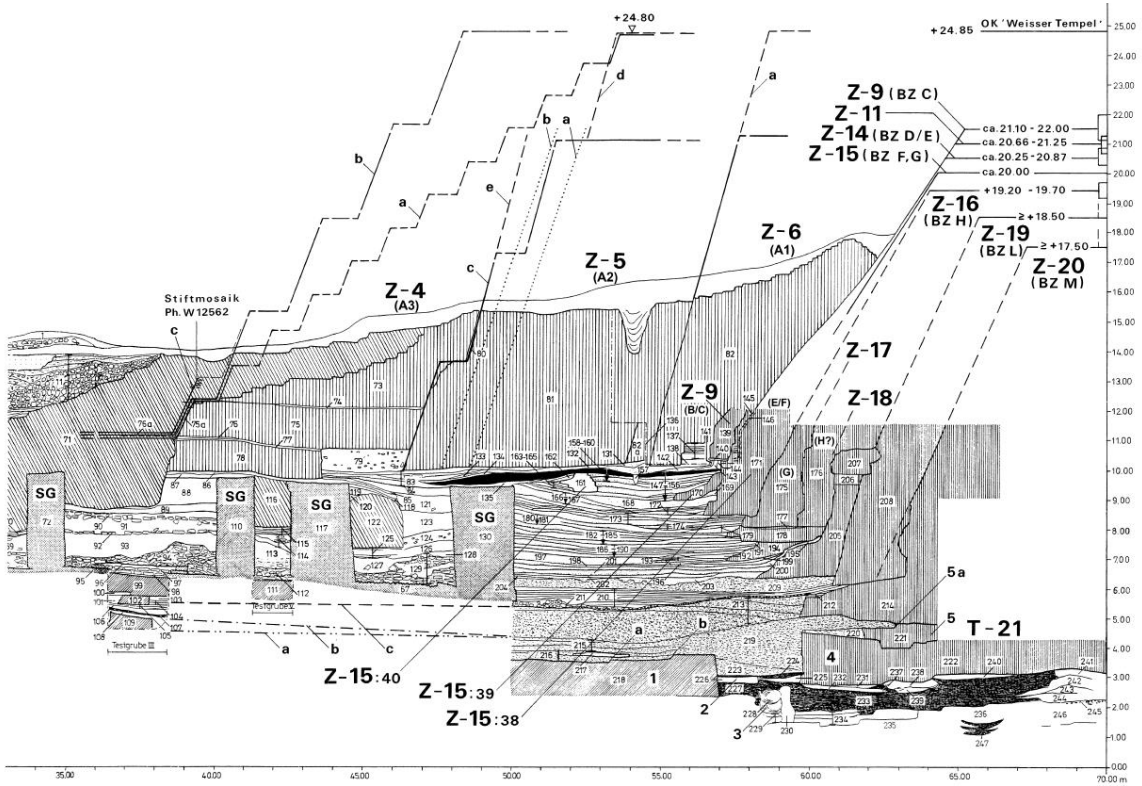
Plan 2.7. The Stone Cone Building (M. van Ess, 2015).



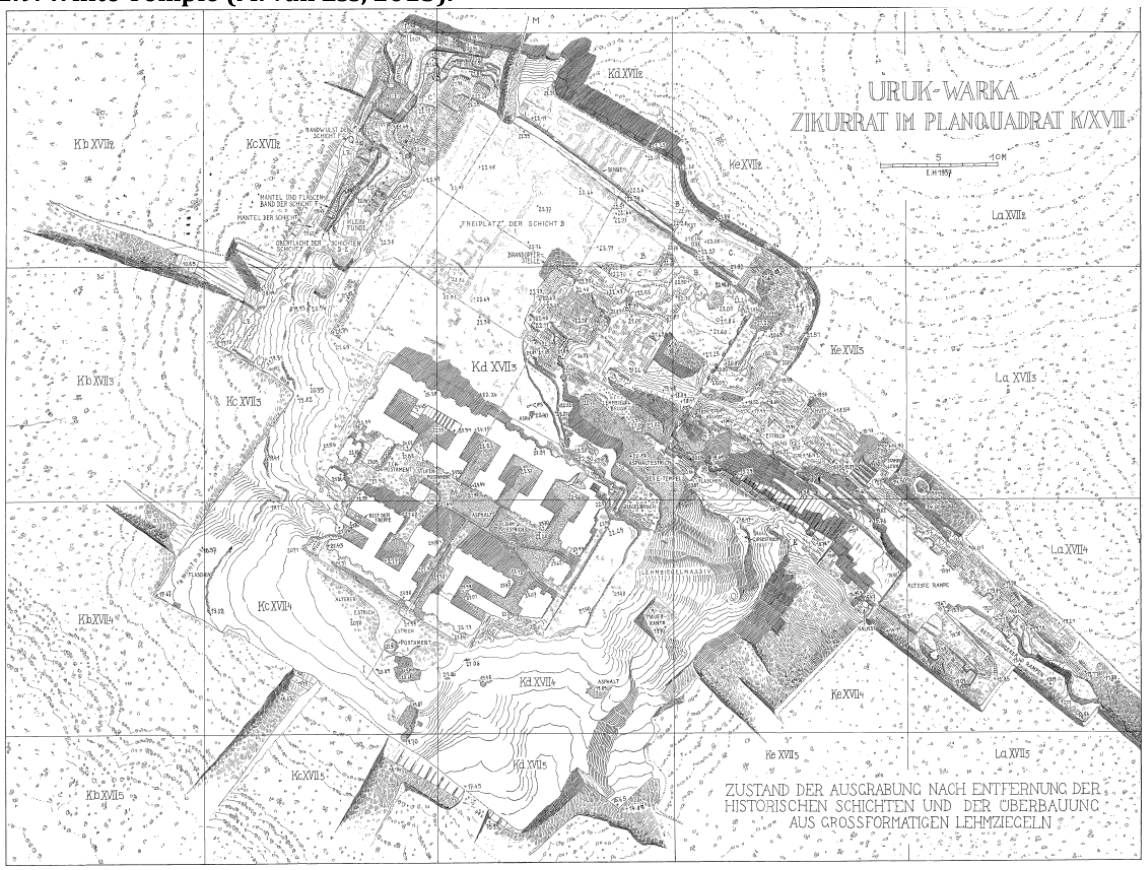
Anu Ziqqurat

The Anu ziqqurat goes back to the late Ubaid Period (end of the 5th millennium BC). It was renewed in many layers until the end of the 4th millennium BC and then covered by a huge terrace (so-called Terrace A consisting of three enlargements A1 - A3 = Z 4 - 6). Plan 2.8 shows a section through the different terraces on on top of another (Z 20 -Z 9). Terraces Z 4 - 6 covered a temple, the so-called "White Temple" which stood on one of the High terraces of the Anu ziqqurat (Terrace B = Z 7), see plan 2.9.

2.8. Section of the Anu Ziqqurat (M. van Ess, 2015).



2.9. White Temple (M. van Ess, 2015).



The White temple is still preserved although suffering from rain and wind. To the north of the white temple another platform is preserved. There, post-holes with a bitumen cover were found that were used for a wooden structure, perhaps of a building used for a short time only. The post-holes are still preserved.

On the southeastern side of the ziqqurat a staircase leads to the upper platform of the ziqqurat. All building structures were erected with mud bricks and are therefore endangered by erosion.

The Anu Ziqqurrat and its staircase need urgent conservation work, which will be one of the most difficult tasks in Uruk because of the exposed situation of the ziqqurat and because of the fact that all interventions would have an impact on the original building structures.

In 1999, preservation measures were carried out at the Anu Ziqqurat by Margarete van Ess. The floor level of the "White Temple" on top of the ziqqurat was covered by ca 50 cm of modern earth mixed with rice straw. This mixture was selected in order to be able to distinguish modern and original layers in the future.

In addition, the northwestern facade of the Anu Ziqqurat received a shell built by modern mud bricks using rice straw as temper for distinction. By this, the archaeological trench was cut into the massive of the ziqqurat in order to analyse the structure of the high terrace. This decision was taken because rain water was seriously eroding the facade of the ziqqurat.

Both measures are meant as interim solutions and need revision by conservation specialists.

For the future, the following steps will be necessary:

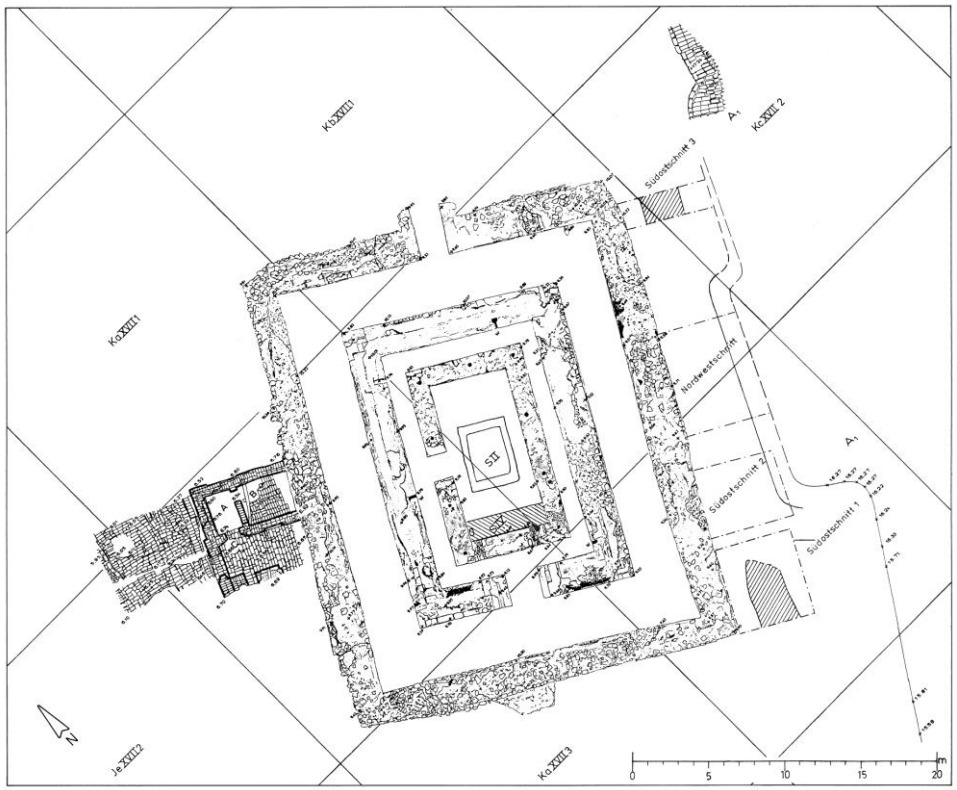
- Temporary renewal of the protection measures of the floor levels and the façade for further protection. These measures need to be carried out each year, at latest each two years, which was not possible for the last 15 years. Work needs to be undertaken by trained staff;
- Cleaning of the remains and documentation of all preserved parts by trained archaeologists. Detailed comparison with the documentation carried out between the 1930's and the 1970's when the structure was excavated. This leads to a proper damage mapping;
- Mapping of the wadis in order to understand drainage patterns;
- Evaluation of all building materials and techniques used for the construction of the ziqqurat and the surrounding buildings in order to develop a proper conservation concept;
- Development of a well-directed rain water deviation system in order to protect the ziqqurat as well as the structures at the foot of the ziqqurat;
- Development of a workflow for constant maintenance;
- Development of a presentation concept that respects the archaeological remains on the one hand and explains the building to the public on the other hand.

This can be carried out only by a team of archaeologists and conservators.

"Stone Building"

The 'Stone building' is situated on the northwestern side, at the foot of the Anu Ziqqurat. Its layout consists of three concentric walls. The way the walls are constructed proofs that the building was used as a sub-surface structure. The walls were constructed as well by limestone slabs and by artificial stone. While the constructed walls are still in a good state of preservation, the stones themselves are deteriorating and need conservation measures. A lot of archaeological features of the wall coverings are still visible as well and need protection from wind and rain.

2.10. Stone Building (M. van Ess, 2015).



The following steps will be necessary:

- Cleaning of the remains and documentation of all preserved parts by trained archaeologists. Detailed comparison with the documentation carried out between the 1930's and the 1970's when the structure was excavated. This leads to a proper damage mapping;
- Analysis of the chemical processes that lead to the destruction of the stone slabs;
- Re-evaluation of all building materials and techniques used for the construction in order to develop a proper conservation concept;
- Development of a presentation concept that most probably has to take into account that the "stone building" will be best presented from the top side, i.e. by looking from a platform towards the building.

Bit Resh

The Bit Resh sanctuary was built in several steps since the 5th century BC. It covers an area of 167m x 213 m and consists of 13 courtyards surrounded by rooms and a temple unit with the two cellae for the god of heaven Anu and his consort Antum. The latter was erected by Anu uballit Kephalon in the year 201 BC and constructed with baked bricks whereas the other parts of the sanctuary were built by mud bricks. The sanctuary was connected to a ziqqurrat which was erected on top of the older Anu Ziqqurat. This Seleucid ziqqurat, however, is only preserved in a few parts. On the other hand, especially the temple in the Bit Resh is preserved to a height of up to 7 m. Its outer facades still show the decoration system.

The Bit Resh was excavated mainly in 1912/13. A lot of its building structures were explored in tunnels or small trenches along the walls in that season. This is the reason why the building is not excavated in a way that allows presentation to the public. Part of the southwestern surrounding wall was studied in the 3rd, 9th, 13th and 27th season, part of the southeastern surrounding wall in the 10th, 15th, 17th , 18th and 27th season and part of the northeastern surrounding wall in the 15th and 16th season.

In general, the Bit Resh is in good condition, however, the way the building was excavated (in 1912/13) makes it difficult for visitors to understand. A proper excavation, on the other hand, would need many years because of the huge size of the building.

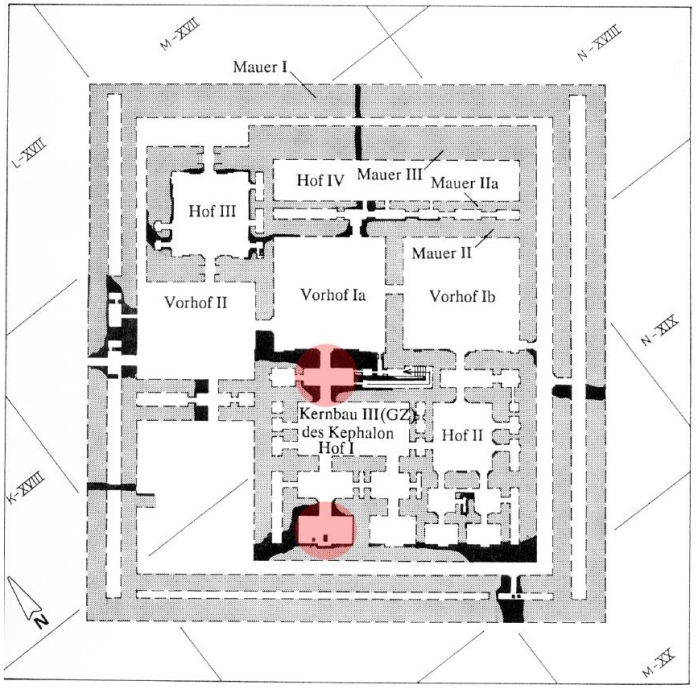
The German archaeological mission proposes for the medium term an excavation to be conducted along the northeastern facade of the Bit Resh, in order to present this to the visitors. The facade still preserves partly its original plaster covering. This creates immediate needs for conservation as soon as it will be uncovered.

Irigal Temple

The temple called Irigal or Eshgal is situated in the south of the central area of sanctuaries in Uruk. It was erected at the latest in the 5th century BC. Three major levels of the temple can be distinguished, the youngest level being erected by Anu-uballit Kephalon around 200 BC. Later, in the Parthian period, several small structures were built into the temple. Again, several levels (two main levels with 2-3 sub phases) can be distinguished.

The Irigal Temple was excavated between 1933 and 1936. Only some parts of the building were excavated because of its huge size and massive construction. By this it is possible to understand the general layout of the temple and main features of its construction only (plan 13, excavated areas are marked in black).

2.11. Irigal Temple (M. van Ess, 2015). (excavated parts are marked in black, the two existing areas of interest for visitors are marked in red)



The building measures 198 x 205 m and consists of a very thick outer wall which surrounds eight courtyards and a temple unit at its southeastern part. The surrounding wall was built of mud bricks and in some parts is only badly preserved while in other parts it still stands to a height of c. 2 m. The temple unit was built from baked bricks and seems to be very well preserved in most of its parts.

Today, mainly the main axis of the temple and the main cella are visible. The two structures show walls of 6 to 7.5 m thickness which are preserved to a height of up to 9 m.[7] For the main axis blue glazed bricks were used. In the main cella remains of a white inscription in Aramaic letters are preserved as well as a pedestal in front of a niche.

Conservation needs are:

- Systematic observation in the field of the preservation of building remains and comparison between the documentation of the 1930's and today;
- Cleaning and conservation measures of the already excavated brick walls. Conservation measures for the glazed bricks of the cella and the main gate of the temple;
- A hole dug from the outside underneath the southwestern outer wall of the temple which was a random "excavation" of the 19th century needs stabilization or closure.

Gareus Temple and Parthian Bath

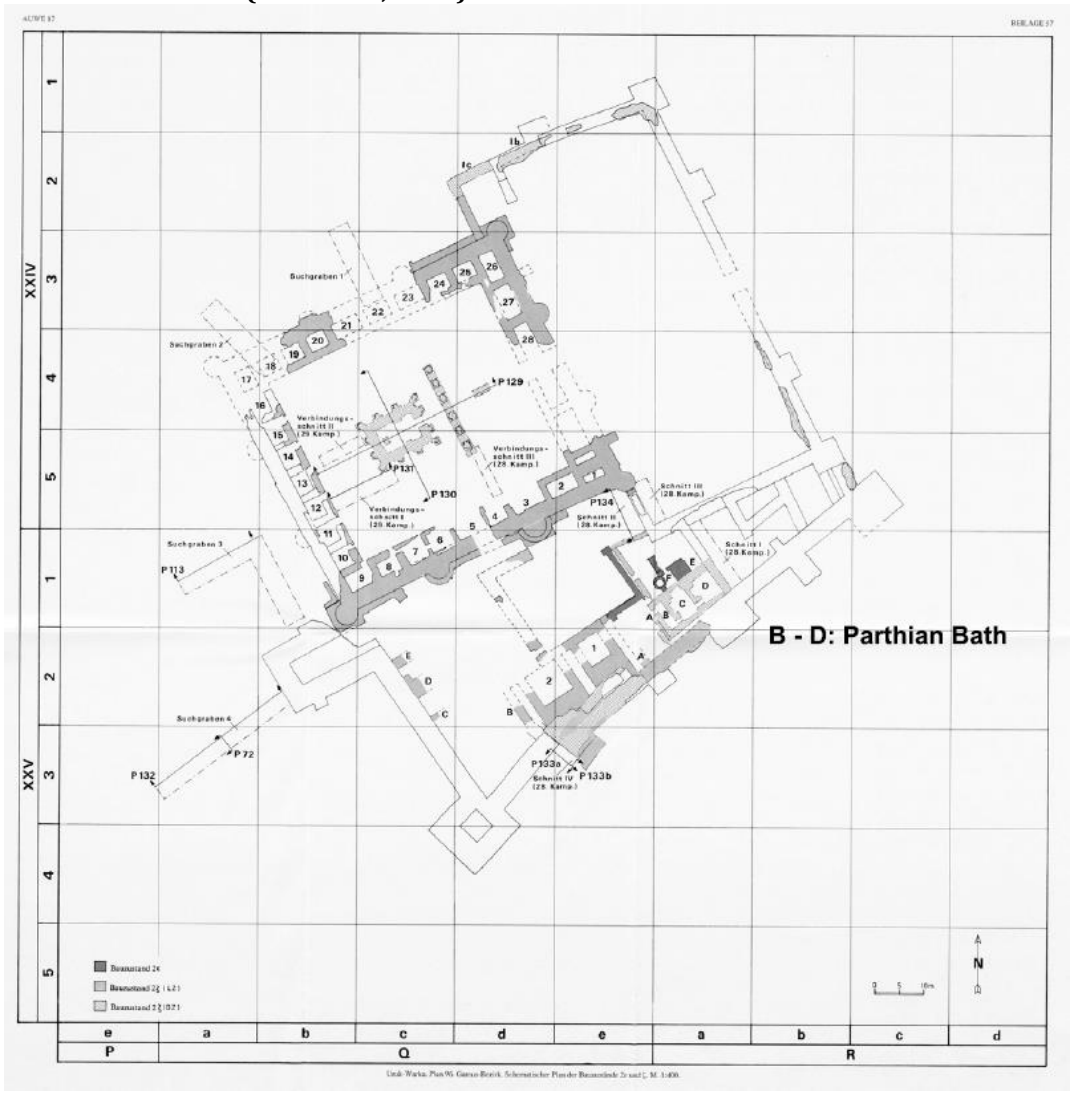
The Gareus Temple sector is located in the southeastern part of the ancient city of Uruk, on top of a settlement hill where it covers an area of 100 x 110 m2. This hill is surrounded on its southern and eastern sides by a low area that was used most probably as a port within the city. It is also demarcated from the northwest and southwest part of the city by an L-shaped low area. This helped to view the whole area and the low slope in the form of terraces as obviously was intended when the temple precinct was provided with towers for the outer fortified wall.

The settlement history of this hill, as preserved underneath the Gareus temple most probably started in the Early Dynastic Period I (beginning of the 3rd millennium BC). Layers of the Isin II to the Late Parthian period were documented – at the moment in all nine archaeological layers. The center of this sector is formed by the small Gareus Temple, built entirely of brick. It was excavated by E. Heinrich during the 6th campaign 1933/1934, further excavations were carried out by J. Schmidt during the 27th - 31st Campaign 1969 - 1973, then focusing on the surrounding buildings. The temple was built in honor of the elsewhere unknown God 'Gareus' whose name was found engraved on a slab of limestone dating back to 111 AD.2

[7] According to SBAH there are risks of serious collapse on the outer southeastern side of the building. In addition, the glazed brick decoration inside the cella of the temple requires a dedicated conservation project.

2.12. Gareus Temple (M. van Ess, 2015).

2.13. Parthian Bath (M. van Ess, 2015).



The Temple was surrounded by an outer wall, the so-called Temenos, which was erected in two building phases and was supported structurally by half-circular or three-quarters-circular shaped towers on its outer side. Three surrounding fortified walls I, II and Ill were unearthed by the excavation.

The building, whose remains are still well preserved, measures at its outer edge 10.70 / 10.35 x 13.70m. The exterior walls, which are preserved up to a height of 4.70 m, were built without a foundation on a layer of mashed loam and thus cause distinct types of damage such as subsidence, erosion, gaping joints and rising of vertical moisture. This urgently needs restoration and consolidation measures. Restoration measures took place between 1969 and 1971.[8] They need to be further evaluated with conservators and accordingly revised.

On the inner side of fortification wall II, bathing facilities were constructed in the Parthian period. Their measurements are 8.1 x 16 m; the building itself consists of three rooms. The walls of the baths were partly reconstructed during the 28th campaign (1970). The new reconstructed structures are currently in bad condition. They need conservation measures using suitable materials.

Architectural remains that can still be seen to this day are the temple and the bath. Other structures are still underground and are to be verified by the documentation. They have an important archaeological value that has to be taken into account when executing any conservation measure.

Conservation needs are:

- Verification of all archaeological structures excavated until the 1970's , and their state of preservation;
- Damage mapping of the temple and the bath;
- Analysis of materials used for the buildings -original ones and those used for the restoration;
- Detailed verification of interventions undertaken by the first restoration and its impact on the presentation of the buildings (for instance: some structures of the temple were blocked by the restoration);
- Development of a presentation concept. Most probably, a complete reconstruction of the buildings cannot be the goal, but they could be presented through a scientific 3D-reconstruction;
- Careful planning of future conservation measures: for instance the movement of heavy machinery towards and especially on the settlement hill would damage the archaeological layers.

[8] They were conducted by the German head of mission, Prof. Dr. Jürgen Schmidt and supported by the German building engineer H.J. Schroter. They were carried out by the architect of the Iraqi Department of Antiquities by using special bricks. They are published in: J. Schmidt, Restaurierungsarbeiten am Gareus-Tempel, in: UVB XXIX / XXX (1979) 91 - 92 (see Arabic translation).

Road Map for Conservation

The German Archaeological Institute is planning a return to the site once the security situation improves. It is proposing to undertake in the future conservation studies and surveys of the existing excavated remains. The road map for such measures is:

1. Development of an overall conservation concept: Identification of the areas and monuments that need conservation measures; collection of all information about the excavation of the structures and their former state of preservation; presentation of expected working steps and methodologies.

2. Detailed damage mapping on still standing structures and evaluation of the state of preservation of covered structures by comparision of the old and actual state of preservation.

3. Development of applicable conservation measures and development of a cooperation project with local authorities. The latter will be connected to a presentation concept.

Step 1 will be completed by the German Archaeological Institute in 2015, with the aim to start with step 2 in the same year.

Section IX. Proposals for Further Excavation and Research

A request for a scientific research permit has been presented to the MoTA by the German Archaeological Institute in 2014 proposing both survey and excavations, with special regard to the needs of a future World Heritage property, and for research focusing mainly on scholarly questions. Approval to all proposed activities was given by the MoTA in 2014. In the following sections, only the proposals for excavation and research with special regard to the presentation of the site are presented.

City Wall
The city wall of Uruk belongs to one of the most prominent features known from the history of this town. It is mentioned in the Gilgamesh Epic as one of the major building tasks of this famous king. The archaeological remains of the city wall were verified in several small trenches and excavations. By these excavations as well as by a geophysical survey we know that its main wall was up to 5 m thick and was strengthened by semicircular bastions. The building material was mainly mud brick; in some parts and periods burnt bricks were used as well. The city wall was first erected in the beginning of the 3rd millennium BC and was in use until at least the Seleucid period **(**3rd century BC). The city wall was however not excavated in larger areas because of the difficulty of its preservation.

Nevertheless, the German team proposes an excavation of the still preserved city wall left and right of the street leading into the site in order to present this important element of the town to the public. The excavation would need to include a conservation project because of the fragile nature of its construction. Such a conservation project would probably include measures such as covering of the original wall remains with geo-textile and earth and the reconstruction of a part of the wall on top. Details of such interventions would need to be discussed with the MoTA.

Irigal Temple
Thinking in the medium term, it is proposed to excavate further parts of the main axis of the temple between the main gate and the main cella. The aim of this excavation will be to allow the visitor to access the main gate and the main cella without climbing over unexcavated high walls, as it is the case at the moment. At the same time the connection between the gate and the cella will be better understood.

Bit Resh
Thinking in the medium term, it is proposed to excavate further parts of the facade of the main temple in order to present the decoration system to the public.

Section X. Interpretation, Education, Visitation, and Tourism

In March 2015, Margarete van Ess, on behalf of the German Archaeological Institute, presented a proposal to the SBAH outlining conservation, research, and tourist facilities development at the site. Following is the proposal for tourist facilities development:

"We propose a large tourist center outside the city with parking places for buses, large cafeteria and information center. Inside the site less structured facilities for the tourists could be offered. The expedition house should be kept for scientific fieldwork activities for three reasons:

1/ One should not allow busses or many vehicles to go into this area because it destroys the archaeological layers which belong to the sacred area;
2/ One should not install modern toilets into the expedition house or allow the use of large quantities of water because this would destroy the archaeological layers underneath which belong to the Eanna sanctuary. Therefore the building is not suitable to receive a lot of persons or tourists;
3/ The expedition house is not suitable for a modern center at all -neither for tourists nor for the constant presence of cultural heritage specialists- because of its historical structure that is a value in itself. Experience shows that the rooms are not suitable for sensitive equipment (computer, media equipment or high-tech instruments for conservation) because of its exposed topographical situation (in times of the frequent dust storms none of the rooms can be properly protected from dust). The expedition house however is still perfect as a temporary working space for scholars during field seasons because of its perfect working rooms, its vicinity to the excavation areas and the possibility to store objects during the field campaigns.

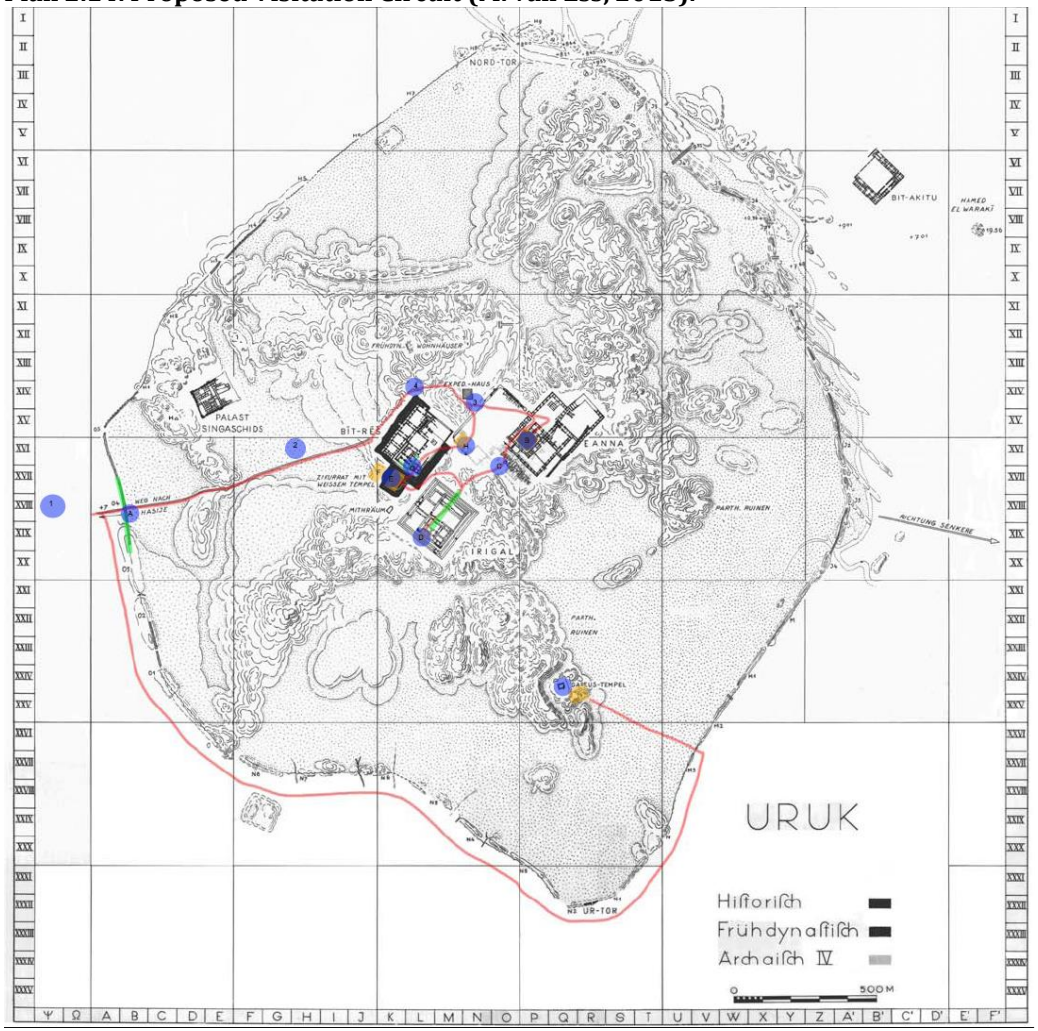
Map point 1. Tourist Center outside the city wall: Meeting point, cafeteria, toilets, video-room with information about the site, about its importance for the development of water management. Possibility to present reconstruction films of buildings that were excavated in Uruk.
Map point 2. Second meeting point, to be reached by vehicles. Here, one could erect a *sarifa* (or reed-hut), in order to reference the tradition and the role the Uruk Period played in this marshlands culture. Possibility for people to sit and explanation of the river and canal system of the ancient site could be offered here.
Map point 3. Small bathrooms and restroom at the expedition house. This should be used for emergency.

Tourist Visitation Points
A. City wall: excavation and partial restoration of a part of the city wall is proposed (green colour)

B. Eanna Ziqqurat: one should be able to climb on top of the ziqqurat because this is one of the major attractions. One possibility would be to build a construction to protect and to use the former main staircase.
C. Walk along the "pillar hall" south of the ziqqurat with information about the Uruk Period buildings which are covered by earth.
D. lrigal main axis to the temple: for the medium term future we propose further excavation of the main axis of the temple in order to show the processional way between the main gate and the cella (green colour). This needs a proper scientific excavation because of the different levels of archaeological remains built into the temple.
E. Walk to the Anu Ziqqurrat. Use of the ancient staircase, which then needs a construction for its protection.
F. View from the Anu Ziqqurat over the "Stone building."
G. Walk along the facade of the Bit Resh main temple in the direction of the expedition camp. Additional exposure of the Anu-Antum Temple is proposed (green colour).
H. Visit of the Stone Cone Building and its wall (conservation and presentation concept needed).
I. Visit to the Gareus Temple by using a street outside the city wall.

In the prospect of Uruk's inscription on the WH List as a component part of the proposed property, a comprehensive visitation plan will be developed emphasizing linkages and complementarities between the different cultural and natural components together with the specific characteristics and values of each component.

Plan 2.14. Proposed Visitation Circuit (M. van Ess, 2015).



Section XI. Management Objectives

The Uruk Archaeological City component is affected by several human induced and natural factors dictating its management objectives. These address the protection, study and long-term conservation of the archaeological remains. They also aim at presenting this remarkable but fragile site to visitors, and at providing economic benefits to local stakeholders based on the sustainable use of the site.

The main factors influencing the management of the Uruk Archaeological City component are:

- The level of maintenance in the face of continuous erosion, vegetation growth and humidity, and damages from visitors;
- The level of control of trespassers and visitors;
- Conservation, research and monitoring needs;
- An expected increase in the numbers of visitors;
- The level of effectiveness of the legal frameworks and enforcement mechanisms;
- The level of institutional coordination and collaboration between concerned stakeholders;
- The available level of funding for management.

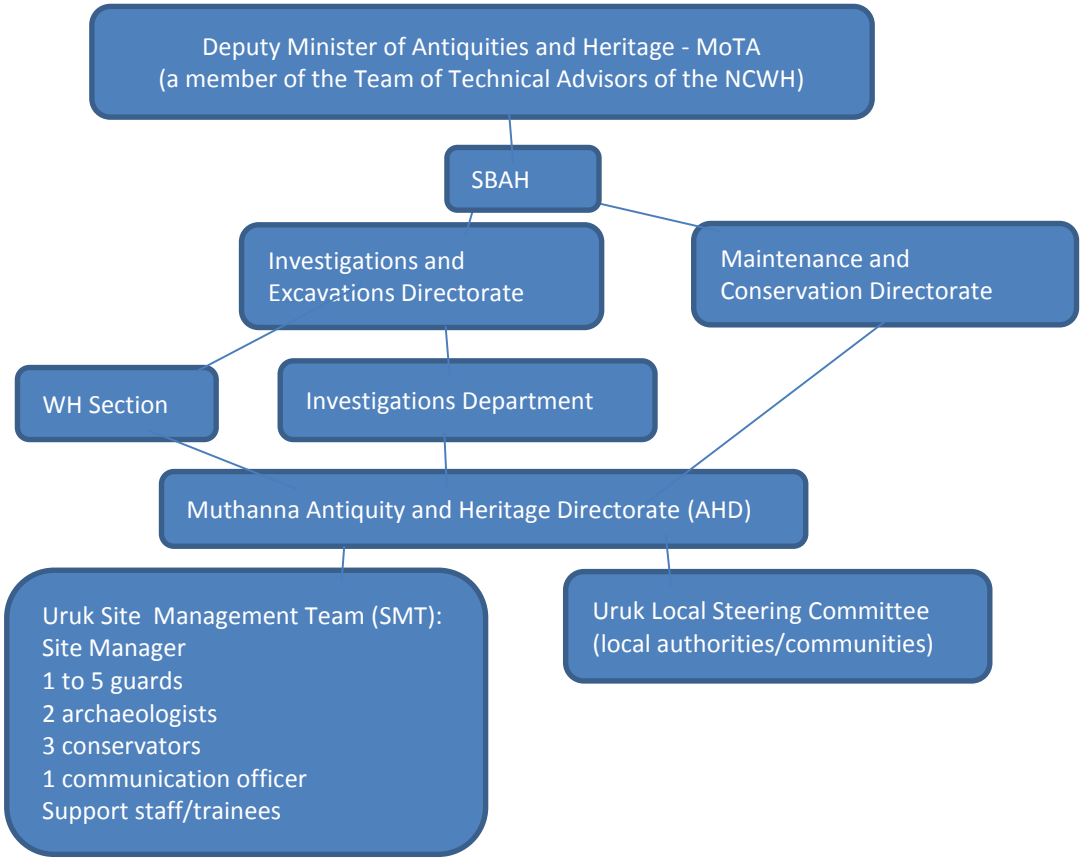
The following key objectives are set for the management of the Uruk Archaeological City component:

1. To establish a dedicated capacity in site protection, conservation, monitoring and management.
2. To address natural threats, particularly erosion and humidity, through a set of conservation measures.
3. To establish a regular and efficient monitoring regime.
4. To improve the protection of the site against trespassing and uncontrolled or unmonitored visitors by marking boundaries/buffer zone and improving policing.
5. To develop research activities at the site.
6. To develop the site for visitors in a sustainable way.
7. To develop suitable and quality management, protection, research, security and tourism infrastructure at the site.
8. To enhance the level of institutional cooperation leading to effective long-term management.
9. To enhance cooperation with foreign archaeological missions as regards conservation, research and capacity building for local staff.
10. To provide economic opportunities to local communities at and around the site through research activities and tourism development.
11. To enhance the participation of local communities and authorities in decision making about the site.
12. To communicate knowledge and awareness about the value of the site to national and international audiences.
13. To provide adequate financial allocations to implement priority interventions and projects.

Section XII. Proposed Management Structure

The Antiquity and Heritage Directorate (AHD) of Muthanna is directly responsible to ensure the conservation, management and monitoring of the component. In an internal decision dated 15/2/2015, the formation of a dedicated management structure (a Site Management Team) for the site of Uruk in accordance with the provisions of this Management Plan was given the green light by the central administration of the SBAH.

Figure 2.1. Management Structure of the Uruk Archaeological City Component



Chapter III. Management Plan of Ur Archaeological City

Component Part of

The Ahwar of Southern Iraq: Refuge of Biodiversity and Relict Landscape of the Mesopotamian Cities

Property Nominated by the Government of Iraq in January 2014 for Inscription on the World Heritage List

CONTENTS

Section I. General Overview of Ur Archaeological City

Ur Archaeological City (modern Tell Al Muqayyar) is situated 17 km south-west of Nasiriyah, the administrative Centre of the Dhi Qar Governorate, and 200 km north of Basrah and the Arabian Gulf.

Ur is registered in the Official Gazette n° 1465 of 17 October 1935 as an archaeological site, and is protected under article 7 of the Iraqi Law of Antiquities and Heritage n°55 of 2002. Registration in the Official Gazette includes the definition of the site's official boundaries and buffer zone.

The boundaries of Ur as a component of the proposed World Heritage property follow the lower topographical contours of the archaeological mound (Tell Al Muqayyar) which encompasses all the most important archaeological remains of the Sumerian period. The buffer zone coincides with the boundaries of the official archaeological site and the ancient city walls. In addition to public buildings, the buffer zone includes two of the three identified harbours of Ur, one on the northern corner of the city wall, and the second along the western wall, none of them excavated yet. However the main harbour is situated outside the buffer zone of the property's component yet inside the buffer zone of the archaeological site as defined in the Official Gazette. This entails that the harbour is protected under the Law of Antiquities and Heritage. It has yet to be excavated and the boundaries of the component might be extended at a later stage to include it. The component covers 71 ha, and its buffer zone covers 317 ha.

Table 3.1. Centre Point Coordinates of the Ur Archaeological City Component

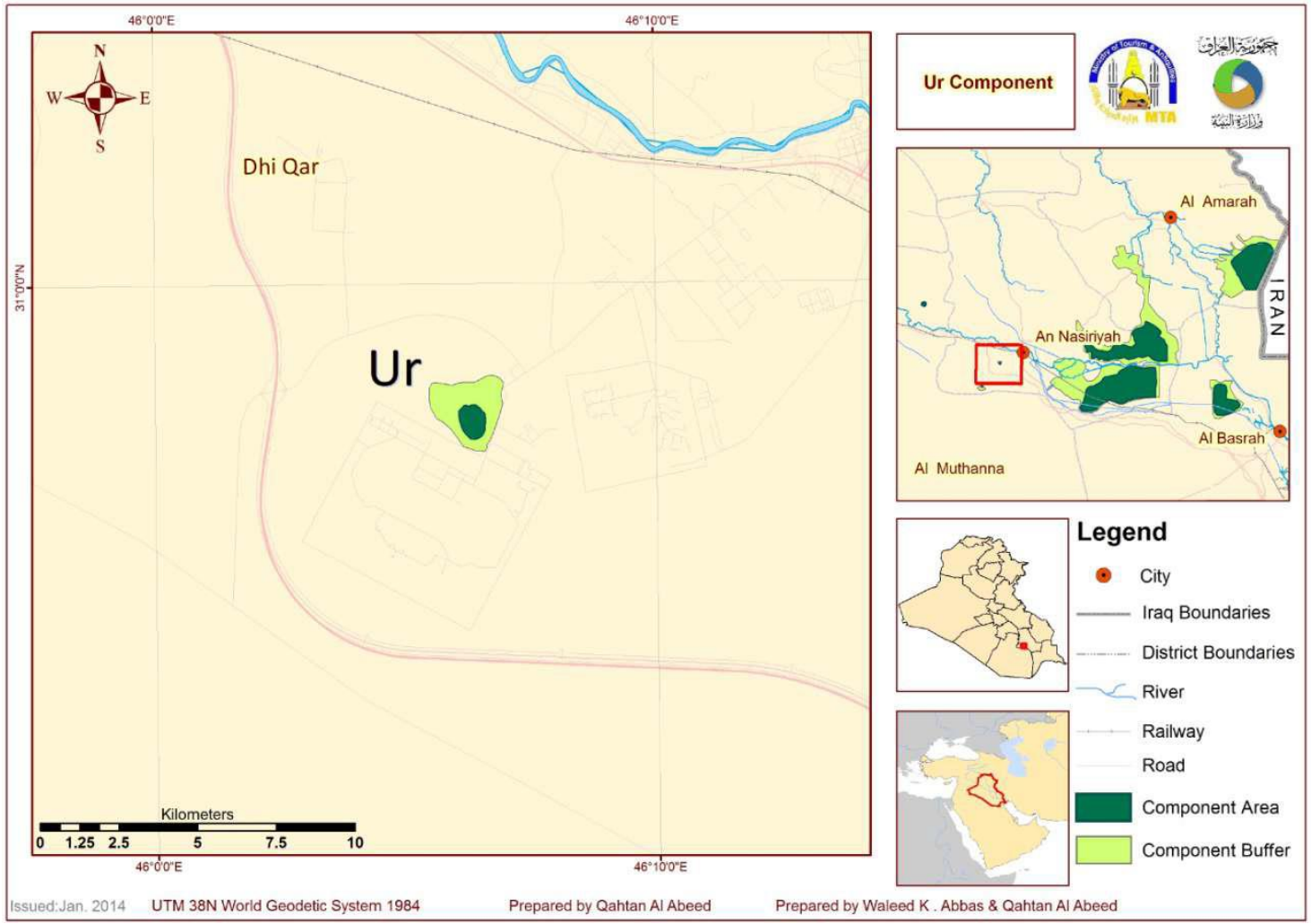
Component	Governorate	Coordinates of the central point
Ur Archaeological City	Dhi Qar	N 30 57 47/E 46 6 11

Table 3.2. Size of the Ur Archaeological City Component and its Associated Buffer Zone

Component	Area of component (ha)	Area of buffer zone (ha)	Governorate
Ur Archaeological City	71	317	Dhi Qar

The component is surrounded by a mudbrick wall of oval shape and contains a ziqqurat, several other temples, palaces, and public buildings, together with residential quarters, two harbours, and a burial site including the so-called royal tombs.

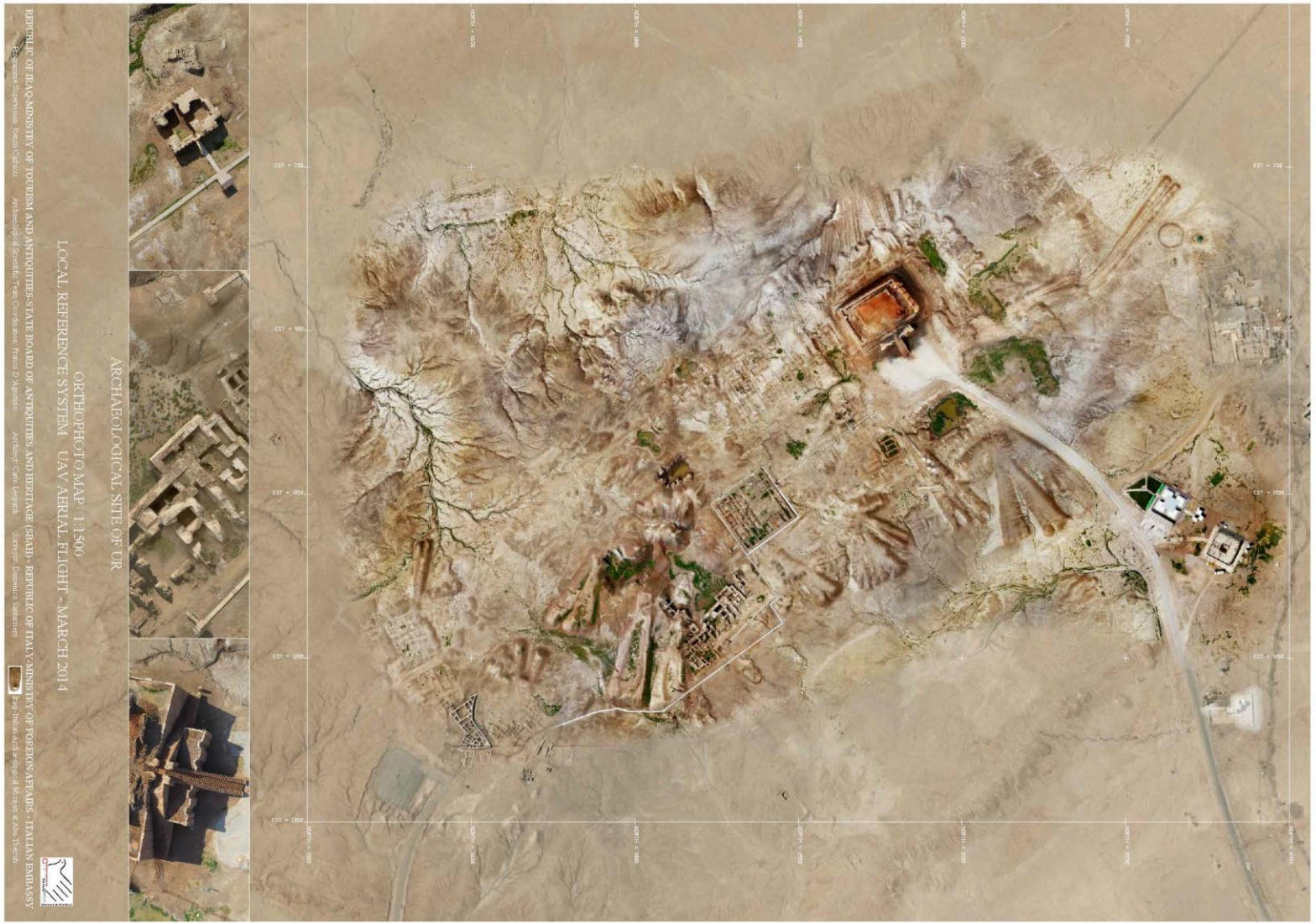
Map 3.1. Ur Archaeological City Component



Picture 3.1. Aerial View of the Ur Archaeological City Component with its Boundaries and Buffer Zone.

No.	Name
1	Ziggurat-Ur
2	Temple Nannar
3	E-Nun-Mah
4	E-Dub-Lal-Mah
5	E-Nin-Gal
6	E-Gig-Park.Ku
7	Sulgi Palace
8	Sulgi Tomb
9	Royal Tombs
10	Flooding Pit
11	Late Babylonian Quarter
12	Western Gate
13	Isan-Larsy-Quarter
14	Ibrahim House
15	Temple of Enki
16	Nabu Naid Palace
17	Northern gate
18	Taha Baqar House
19	Housing
20	An Expedition House
21	Guardian House
22	Street
23	Boundary
24	Buffer1

Map 3.2. Orthophoto Map of Ur (F. D'Agostino et al, 2014).



Section II. Significance

Archaeologists have discovered evidence of a prehistoric occupation at Ur during the Late Ubaid period (c. 4000 BCE). These early levels were sealed off with a sterile deposit that was interpreted by excavators of the 1920s as evidence for the Great Flood of the *Book of Genesis* and the *Epic of Gilgamesh*. It is now understood that the south Mesopotamian plain was exposed to regular floods from the Euphrates and the Tigris, with heavy erosion from water and wind. Ur is recorded in written history as a city-state from the 26th century BCE under the First Dynasty of Ur. Although it must already have been a growing urban center during the 4th millennium, visible remains date mostly from the 3rd millennium when the city experienced a renaissance under the Third Dynasty of Ur (c. 2120-2000 BCE).

Ur was once the most important Sumerian port located on a branch of the Euphrates with access to the sea. The city was surrounded by marshes. Ur emerged as a key player in the political life of the southern city-state system during the period of the First Ur Dynasty (2670 BCE) when it became one of the most important and wealthy Sumerian cities. It profited from its location as the city closest to the entrance of the Arabian Gulf and developed into the most important Sumerian port on the Gulf, which extended much further inland than it does today.

At the end of the 3rd millennium BCE, it controlled a vast empire known as Ur III state and connected southern Mesopotamia with trade partners in the Arabian Gulf, India and northern Mesopotamia. The Ur III administration used written records on an unprecedented scale: more than 80,000 cuneiform tablets have been uncovered to date, giving a unique insight into the Sumerian world and highlighting the importance of the wetland environment for Sumerian economy, belief system and literature. Ur remained one of the most prominent administrative, intellectual and religious centers in Mesopotamia until the Hellenistic period.

Section III. Mains Archaeological Features

The most significant scientific excavations were conducted at Ur from 1922 to 1934 funded by the British Museum and the University of Pennsylvania and led by Sir Charles Leonard Woolley. A total of about 1,850 burials were uncovered, including sixteen that were described as "royal tombs" containing many valuable artifacts. Most of the royal tombs were dated to about 2600 BCE. Near the ziqqurat several temples, residences and public buildings were also uncovered. Excavations were also made next to the royal tombs layer: a 3.5 m. thick layer of alluvial clay covered the remains of earlier habitation, including pottery from the Late Ubaid period. Woolley later published several articles and books about the discoveries.

As of 1960, the then Iraqi Directorate General of Antiquities started to carry out excavation and conservation work on the site which had been neglected for decades and where some of the areas that were cleared during previous excavations had been sanded over again. Under the direction of Taha Baqir, rebuilding of part of the outer shell of the ziqqurat was undertaken: this included the first terrace, the main staircase and the two towers reinforcing the central staircase. What was left of the second level was restored, together with the staircases and the inner walls of the E-dub-lal-mah and the northern, eastern and southern sides of the Royal Palace. Between 1967 and 1982, under the direction Shah Ali Al Siwani, excavation work was carried out in the Royal Cemetery.

Today's archaeological site is surrounded by a mudbrick wall of oval shape. Inside, an almost rectangular *temenos* or sacred precinct (400 x 220 m) built of fired bricks with the external facades covered with glaze encircles a number of religious, royal and public buildings described below (see plans of main areas and buildings under Section 3.5).

The ziqqurat is the most outstanding building with remains clearly visible. It is situated in the northeastern part of the sacred precinct. Dedicated to the moon god Nanna, it was built on a platform 4-5 m high during the reign of Ur-Nammu and his son Shulgi (Ur III period) and reconstructed in the 6th century BCE by Nabonidus, the last king of the Neo- Babylonian Empire. The ruins cover an area of 1,200 m northwest to southeast by 800 m northeast to southwest and rise up to about 20 m above the present plain level. At present, only the first terrace (62.5x43x11 m) and the second terrace (37x26x5 m) are visible. Only traces of the core of the third terrace still exist. There might have been a small temple over this terrace dedicated to the moon god Nanna. Structurally, the ziqqurat is made up of a mudbrick core covered with fired brick walls moved by a sequence of buttresses and niches. The walls of the terraces were not vertical but slightly inclined. The ziqqurat has three central perpendicular stairs from the base to the summit, joined at levels one and two by two convergent side stairs. Rectangular holes within the structure helped drain rainwater. The Directorate General of Antiquities rebuilt the outer shell in the early 1960s.

The Royal Palace of Ur-Nammu and Shulgi (known as E-hor-sag/House of the Mountain) is situated near the Royal Cemetery and south-east of the ziqqurat and the Gig-par-ku, the high priestess' residence (see below). Construction was initiated by king Ur-Nammu and completed by his son Shulgi. The kings' names are stamped on the fired bricks of the palace. Its square plan (55X55 m) is characterized by a large central courtyard surrounded by rooms, alleyways and service quarters. The Directorate General of Antiquities restored the site in 1963.

The E-dub-lal-mah (10 X 10.5 m) is a large temple situated in the eastern corner of the holy wall of the ziqqurat. The structure was first built under the Ur III dynasty but inscriptions on the fired bricks indicate that several kings restored and enlarged it, among them the Babylonian kings Nebuchadnezzar (604-562 BCE) and Nabonidus (555-539 BCE). The original arch over its main entrance is considered one of the oldest examples of brick-built arches in the world. The building is composed of two rooms (cella and anti-cella). Stairs allow access to the cella. In the early 20th century, L. Woolley capped the walls with concrete to protect them from natural phenomena, and conservation work was carried out by the Directorate General of Antiquities in 1962 at the stair inside the temple as well as at its outside and inside walls.

The E-nun-mah temple is square-shaped (47X47 m) and built of fired bricks. It is situated to the east of the E-dub-lal-mah, south-east of the ziqqurat. Built during the Ur III period, it was enlarged and/or restored various times until the Neo-Assyrian period (934-609 BCE). Foundations are still visible above the ground.

The Gig-par-ku dates back to King Amar-Sin, the third ruler of of the Ur III dynasty and son of Shulgi. It is situated south-east of the Ziqqurat. In its first phase, the residence of the high priestess of Nanna was an approximate square building measuring 56.50x79 m. It comprises two similar rectangular parts, separated by a long east-west path with entries leading to both buildings. Restoration and enlargement works were performed especially in the Kassite and Neo-Babylonian periods. The foundations are still visible at ground level.

The Royal Cemetery is situated south of the Royal Palace. The major part of the Royal Cemetery belongs to the Early Dynastic period. It comprises sixteen collective royal tombs, organized in several rooms roofed with arches and rich in funerary objects, in addition to 1800/2000 single graves. Most of these graves are situated in the southern part of the Royal Cemetery and few of them in the north-eastern part. One of the most important tombs for the number of impressive golden finds is that of Queen Puabi, named from a cylinder seal found on her body.

The cemetery located to the south-east of the Royal Palace is attributed to Shulgi and to his son Amar-Sin, kings of the Ur III Dynasty according to their names stamped on the bricks. Over the burial chambers, a funeral temple with several rooms opened on a central

courtyard. The tombs were built up of tar, fired and mudbricks. The tomb of Shulgi measures 35x27 m and that of Amar-Sin 19x17 m.

Excavations conducted outside the sacred precinct, that is in the area included in the buffer zone of the property component, uncovered extensive residential areas from the Paleo-Babylonian, Kassite and Neo-Babylonian periods of which parts of walls are still visible on the site. This includes the so-called "House of Abraham" identified as such by L. Woolley in spite of the absence of any scientific evidence. It is situated in an area dated to the Isin-Larsa period (early Paleo-Babylonian). The walls of this complex building composed of many courtyards and rooms have been rebuilt by Qasem Radhi from the State Board of Antiquities and Heritage in 2001-2002.

Only one structure in that area of the property is dated to the Sumerian period, the Enki Temple, built by Amar-Sin and dedicated to the god of wisdom and fresh water. Situated to the south-east of the city and inside its external wall, the temple measures 42x32 m and comprises a courtyard containing a platform on which stood the statue of the god Enki. Various rooms and installations overlook the courtyard. However no remains of this building are visible today as excavations damaged the building.

In addition to public buildings, the buffer zone of the property includes two of the three identified harbours of Ur, one on the northern corner of the city wall, and the second along the western wall, none of them excavated yet.

Section IV. Site Documentation

The Italian mission to Abu Tbeirah, directed by Dr. Franco D'Agostino (University of Rome "La Sapienza") has developed a GIS (using QGis open source software) and detailed cartography of the site using low aerial photogrammetry. This activity generated two ortho-photomaps, one of the central area of the site with a resolution of 5 cm and one of the whole area with a resolution of 20 cm. This activity is still ongoing and will be completed in 2015.

The same mission also prepared a number of conservation proposals for specific structures, documenting these in detail with elevation, sections, and detailed drawings, as well as 3D laser scanning. Drawings and digital 3D models are now available for E-dub-lal-mah Temple. Surveys and drawings in view of specific conservation projects have been also produced for the ziqqurat and the Royal Tombs of the Third dynasty.

Besides these field activities, the Ur Digitization Project, run in partnership by the British Museum and the Penn Museum, was launched in 2013 with the aim to reunite in a digital space all documents and photos related to the campaigns of Woolley of the 1920s and 1930s scattered across the globe in private archives, public newspapers, journals and monographs[9].

[9] http://www.britishmuseum.org/research/research_projects/all_current_projects/ur_project.aspx

Section V. Conservation Issues and Previous Interventions

The only conservation intervention conducted during the 1922-1934 mission directed by Leonard Woolley was the consolidation and construction of a concrete roof above the E-dub-lal-mah temple. The stability of the walls is affected by the roof weight and lack of maintenance. A wooden buttress, still in place, was also placed to support a wall in Shulgi's tomb.

From 1960 to 1968, the Directorate General of Antiquities conducted general conservation work at the site, which included the reconstruction of the ziqqurat using locally made fired bricks, tar, reed mats between layers of bricks, and some cement to lay the bricks. Living quarters were also built to house the team: this structure is still being used by archaeologists today. More conservation work was conducted from 1982 to 2002; however, all activities on site were stopped with the advent of the 2003 war.

These missions took care in producing mud and fired bricks of the same composition and colour of the original ones. Bitumen was also prepared and used as waterproof coating. Reed mats were woven and inserted in reconstructed mud brick walls so as to allow for their expansion and contraction under different environmental conditions. Cement however was used profusely to lay down the bricks, especially in the 1960s, as it was common practice at the time. Although cement has been replaced by mud mortars in more recent interventions, it was still used as recently as 2002 in the conservation of the so-called House of Abraham.

In general terms the site suffers from harsh environmental conditions, producing phenomena of water and wind erosion, salt efflorescence at the base of the walls and collapse. The high-resolution map produced by the Iraqi-Italian mission with the help of a drone also shows the presence of invasive vegetation growing at the bottom of excavated areas, where water and moisture accumulate. This phenomenon also causes undercutting and collapse of mud brick walls. Once it dries-up in summer, this vegetation also contributes to fire hazards.

The Iraqi mission to Ur restored the ziqqurat during the 1960s and 1980s conservation campaigns using fired bricks laid with cement. Substantial excavations and consolidation works was undertaken in addition to rebuilding of the south frontage of the ziqqurat including the three flights of stairs and the lower portions of the western end of the south frontage. Extensive repair of damages to the façade was also carried out.

Today, this monument shows cracks and erosion, both of the modern restoration and of the original core. For the latter, a solution needs to be found to stop water infiltrations and allow water finding its way to the core to be drained out. Modern graffiti are visible on the surface of the bricks. A documentation and conservation assessment is being prepared by the Iraqi-Italian mission to Ur.

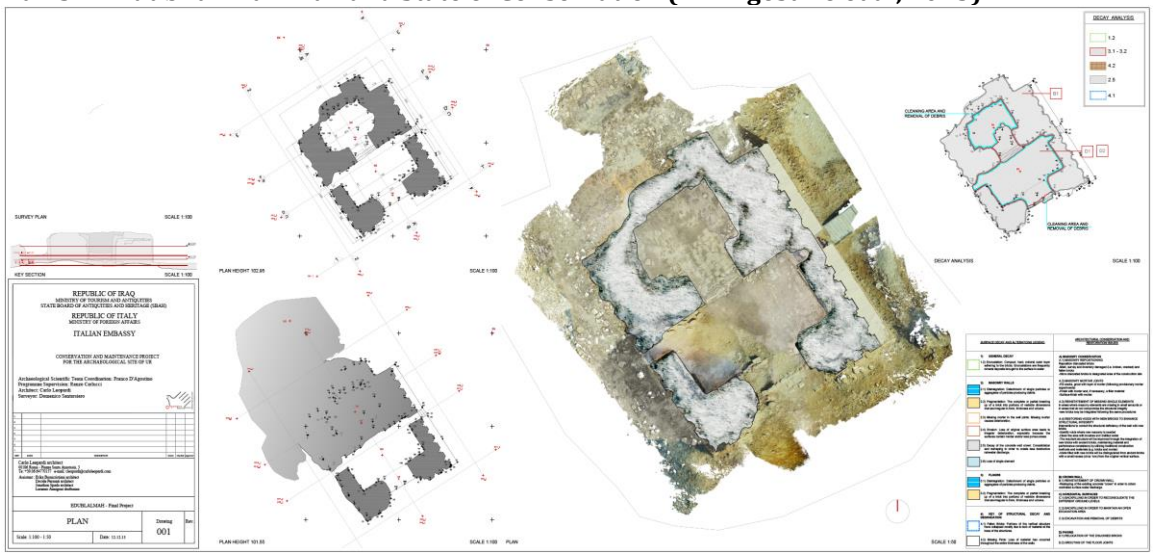
Plan 3.1. Ziqqurat, E-dub-lal-mah and Shulgi and Amarsin Mausolea (F. D'Agostino et al, 2014).

The E-dub-lal-mah temple is located in the south-east corner of the sacred precinct of the ziqqurat, the E-temen-ni-gur of Ur-Nammu. This temple was excavated by Leonard Woolley in the 1920s, and restored using concrete. It received some conservation work during the 1960s consisting in exposing the walls of the temple and its paved limestone floor. Some conservation works were undertaken inside the building, and the stairs leading to the holy of holies were rebuilt. The cella's internal and external walls were also restored.

Today the building is in a deplorable state of conservation, with deep cracks due in large part to the heavy concrete roof installed in the 1920s, which is exerting a heavy load on the ancient masonry and is dropping, thus affecting the supporting walls themselves in bad condition. The building suffered from a long period of neglect and exposure to the elements without any maintenance work. The

building was thoroughly documented by the Iraqi-Italian mission and a conservation proposal with related specifications and bill of quantities was prepared in 2014.

Plan 3.2. E-dub-lal-mah Plan and State of Conservation (F. D'Agostino et al, 2013).



The Enki temple, built by Amar Sin the King of the Third Dynasty of Ur is situated in the harbour area southeast of the city inside its external wall. Nothing much remains of this building because of subsequent collapse and disintegration due to neglect and exposure to the elements.

The Nin-mah temple is situated inside the sacred temenos to the east of the E-dub-lal-makh temple. The building was cleaned by the Iraqi Mission in the 1960's, its architectural features were exposed. Sadly however, the building was not restored nor consolidated; it was left to disintegrate totally through exposure to the elements, neglect, and uncontrolled access.

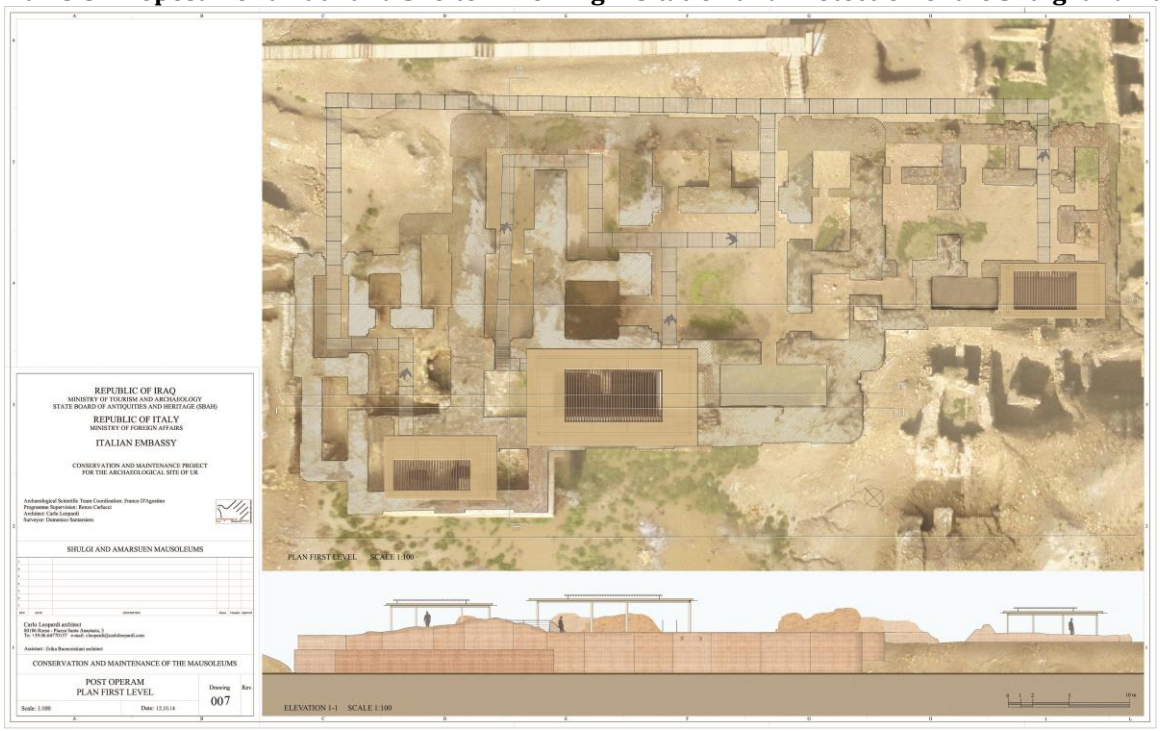
The Nanar-Sin temple is situated right opposite the ziqqurat. The Iraqi mission took charge of clearing the site of the temple from debris and exposing the structure of the building. Like the other monuments, it was left to disintegrate in total due to the absence of a conservation and maintenance program.

The same conditions characterize the Nin-Kal temple and Kiki bar-ku temple whereby exposure to the elements and the lack of maintenance and conservation have almost completely obliterated the traces of these ancient buildings.

The E-nun-mah temple, located to the east of the E-dub-lal-makh, was subjected to some cleaning and consolidation during the 1960's mission, but this has not stopped the heavy decay of its remains. Today, little is visible of the original plan.

Nanna's temple, located to the north of the ziqqurat, also suffered from neglect and erosion and will need proper re-excavation and consolidation in order to be interpreted and visited again. The same can be said of Nanna's courtyard, located to the east of the ziqqurat, the Giparu of Amar-Sin, the E-hursag of Ur-Nammu and Shulgi; located to the south and south-east of the ziqqurat, and the mausoleum of Shulgi and Naram-Sin.

Plan 3.3. Proposal for a Path and Shelter Allowing Visitation and Protection of the Shulgi and Naramsin Mausoleum (F. D'Agostino et al, 2014).



The Royal Cemetery of the Third Dynasty consists of a number of subterranean structures built with fired bricks. During the 1960s mission, the various structures were consolidated and partly rebuilt using fired bricks laid with cement. Lack of maintenance has caused erosion, brick-displacement and cracks in several walls and ceilings. Modern graffiti (mainly in ink) are visible on the surface of the walls. These structures are being documented by the Iraqi-Italian mission and a detailed conservation proposal is being developed.

There are a number of other structures located outside of the sacred precinct that are in a poor state of conservation due to neglect, erosion, and material decay, including the so-called House of Abraham, the Harbour temple, the Larsa-period quarter, and the Parthian-period buildings. While the House of Abraham was reconstructed by L. Woolley, the other structures were only partly excavated and are almost completely collapsed or buried. The House of Abraham received more conservation work in the early 2000s, when walls were consolidated using fired bricks, and capped with layers of cement.

Section VI. Current and Planned Research and Conservation

As mentioned in the previous section, the Iraqi-Italian project currently financed by the Italian Cooperation addresses documentation and the preparation of conservation plans for three structures at the site: the E-dub-lal-mah, the Royal Cemetery, and the ziqqurat.

Currently, the plans for the conservation of the E-dub-lal-mah temple and the Mausolea of Ur III are completed and include detailed budgets and bills of quantities (the bill of quantities for the E-dub-lal-mah has been translated into Arabic). The documents have now been handed over to the Iraqi authorities and can therefore be implemented either through the resources of the SBAH or in collaboration with missions active in Ur and other donors. The Dhi Qar Governorate approved the budget for this project as part of its 2013 budget allocation, but the funds have not yet been committed; this is largely due to the deteriorating security situation in the country and the low oil prices, which had a significant impact on the national treasury.

These projects constitute the first two phases of the conservation study funded by the Italian Cooperation and led scientifically by La Sapienza - University of Rome; the third phase involves the conservation and maintenance of the site of ziqqurat, always guided scientifically by the team of La Sapienza University. Projects for the Royal Tombs and the ziqqurat are in preparation in addition to a study for developing signage and interpretive panels to be installed on site.

Furthermore, the Stony Brook University, NY plans a survey and an excavations project in the south part of the Royal Tombs. The framework agreement organizing this work has been recently signed with the SBAH.

Section VII. Site Protection

The security network that is operational at Ur consists of the Antiquity and Heritage Police, the inspectors of the Dhi Qar AHD as well as the guards living on-site with their families.

Site Security and Policing
The site is fenced with barbed wires to mark its official boundaries however the fence does not prevent trespassing. A path, partially covered with wooden planks and equipped with some shaded shelters, leads visitors around the main building remains. The Royal Tombs are fenced off with a door to prevent visitor access except under the control of a guard. The path and tombs door were installed by the US army post-2003 to ensure some degree of visitor control.
The Antiquity and Heritage Police has three stations at Ur (the main one situated at the entrance of the site), as well as three mobile patrols. In addition, three full time civilian guards employed by the Dhi Qar AHD live permanently with their families on the site. Furthermore, a large army base is situated close-by, to the south of the site. Although the army does not have any responsibilities with regards to the protection of the archaeological site, it can play a decisive role in its protection in the case of a serious breach of security, which goes beyond the means and capabilities of the Antiquity and Heritage Police, or at times of conflict. To that effect, the army needs to be systematically sensitized as to the significance of the site, the threats affecting it and countermeasures that can be taken to protect the site and its integrity.

Site Vigilance
Site vigilance consists mainly of the monitoring activities of the guards residing full time on the site. In the case of special groups, these are normally escorted by inspectors from the local AHD and are taken around the site in a systematic manner.

Challenges
- The existence of a fence has not been a deterrent against trespassing. However the installation of security cameras is not advised, at least not for the initial phase of the project, since they require specialized maintenance that may not be available for some time at the site.
- Visiting school groups visiting are said to remove bricks from the top of the ziqqurat and walk over antiquities.
- Absence of a health and safety risk assessment to make sure that no harm incurs on visitors during their visit to the site.
- No available site log where infringements on the integrity of the site are recorded and later on addressed as part of an overall strategy to protect the site and its infrastructures.

Section VIII. Other Factors Affecting the Site

Lack of regular maintenance compounded by **erosion** (in particular strong winds), limited vegetation growth (especially in areas where water and moisture accumulate), and **uncontrolled access** over exposed and precarious ruins by some visitors, contribute to the deterioration of the site.

Development Pressures
Until 2014, electrical poles and wires ran along the paved road from the site's main entrance to the foot of the ziqqurat. They had a stong visual impact and were since removed by the AHD with support from the local authorities. Furthermore, a paved road and parking areas were built in the 1960s over an excavated area, which used to be the enclosure of the ziqqurat. In 2014, the asphalt was entirely removed.

Barracks are used as a temporary visitor center and will be removed from the site as soon as the new visitor center planned for in the new management plan is completed.

A dig house and guard house are located after the entrance of the site about 350 m to the north east of the ziqqurat. Another dig house, hosting international archaeological missions, is located 450 m from the ziqqurat. A laboratory adjacent to the living quarters of the guards and their families is situated 275m northeast of the ziqqurat. Buildings are of cement blocks and equipped with septic tanks but are not connected to a running water network. Trucks deliver water and empty septic tanks. All modern buildings are within the official boundaries of the archaeological site yet inside the buffer zone of Ur as a component of the proposed WH property. Dig-houses and the laboratory may keep their function, provided that they do not disturb the archaeology and are not used as store-rooms for antiquities excavated on site or the region. However provision of facilities such as water and electricity will have to be carefully planned to avoid disturbing intact archaeological deposits or visual impact.

Ur is surrounded by villages and agricultural lands belonging to local tribes to the north and west, and by a military base and Al Makir railway station presently disused to the south and east. The ziqqurat suffered limited damage during the recent conflict in the form of some impact of mortar shell on the modern outer shell. It is possible that fighter jets flying to and from the US military base (Camp Ader) situated 300 m away from the official boundaries of the archaeological site (that form the buffer zone of the proposed property component) threatened the stability of some of the buildings on the site. However structural studies need to verify this fact and propose adequate conservation intervention. Furthermore, US soldiers visiting the site left numerous graffiti on the walls of several buildings. However, the presence of military forces also protected the site from illegal excavations. The military base was returned to the Iraqi

army in 2009 and there is at present very limited military activities that do not threaten the property. An official request was made by the MoTA to the Ministry of Defense requesting to 1/ prevent any military activities or expansions of the camp, 2/ avoid conducting drills and 3/ restrict flights in the aerial space above the site.[10]

The master plan of the city of Nassiriyah, which borders the archaeological site of Ur, is revised on a yearly basis and sent for approval, inter alia, to the Dhi Qar AHD. At present, the municipality of Nasiriyah has put forth a plan to build a road, which will connect Ur directly to the Nasiriyah-Baghdad highway and will avoid the city center. This road will include a resting area and other visitor facilities. In the context of the planned development of the site for visitation, the plan also includes the building of a high standard hotel in the city center and a bridge on the Euphrates. However none of these developments are in the vicinity of Ur Archaeological City. The development of residential complexes are also envisaged in Dhi Qar Governorate, but these will be established at a distance of around 9km from Ur.[11]

Visitation

Ur is currently the only cultural component of the proposed property that receives any noticeable number of visitors, although this number is very relative and difficult to estimate. Guards on site sell tickets, however most visitors come with official invitations or in school tours and enter free of charge. No systematic record of the number of visitors is kept. Tourism is mostly domestic and local (people from Nasiriyah and Basrah, officials, school children and university students). International tourists are employees of the oil companies operating in the south of Iraq, some journalists and researchers, and a limited number of Christian pilgrims for whom Ur bears a religious significance as it is believed to be the place of origin of Abraham. The guards estimate that the site has received less than one thousands visitors per year on average in the past five years (since the withdrawal of the US army at the nearby airbase). Before the 2003 war, the number of visitors was only slightly higher.

During the US occupation of the area, a considerable number of American soldiers visited the site. Not all of them were respectful of the antiquities and instances of vandalism were recorded, particularly graffiti on the reconstructed walls of the ziqqurat and the removing and/or stealing of bricks. Iraqi school groups visiting today are also said to remove bricks from the top of the ziqqurat and walk over antiquities. Efforts are needed to raise the awareness of their teachers to supervise them better during visits, and more generally visitor awareness.

Tourism is not currently a pressure factor and is unlikely to become so in the next two to five years even in the prospect of the

[10] Correspondence reference n. 4877, dated 10/7/2013, MoTA.

[11] Correspondence reference 654, dated 2/3/2015 from the Head of the Urban Planning Directorate in Dhi Qar.

inscription of the property on the WH List. It will take more time and efforts from the part of the Government of Iraq and international tourism industry to improve the image of the country as a safe destination for international tourism. However, the power of attraction of Ur for international visitors is high. The coming few years should allow the concerned national and local authorities to develop suitable visitor infrastructure at the site, including signage and interpretation, together with an adequate visitor management system that will ensure that visitation, even to increased levels, remains responsible.

Table 3.3. Key Threats to the Conservation of Ur Archaeological City

Threats	Level
Infrastructure Development	Medium
Agriculture Expansion	Medium
Mining/oil	Very low
Solid Waste	Very low
Climate Change	Very low
Desertification	Very low
Military/security activities	Medium
Natural Catastrophes	Very low
Tourism and Visitor Pressure	Low
Lack of regular maintenance/ conservation interventions	High
Improper conservation interventions	Medium
Water and/or wind erosion	Very high
Invasive vegetation growth	Medium
Uncontrolled access/trespassing	Medium

Section IX. Management Objectives

The Ur Archaeological City component is affected by several human induced and natural factors dictating its management objectives. These address the protection, study and long-term conservation of the archaeological remains. They also aim at presenting this remarkable but fragile site to visitors, and at providing economic benefits to local stakeholders based on the sustainable use of the site.

The main factors influencing the management of the Ur Archaeological City component are:

- The level of maintenance in the face of continuous erosion, vegetation growth and humidity, and damages from visitors;
- The level of control of trespassers and visitors;
- Conservation, research and monitoring needs;
- An expected increase in the numbers of visitors;
- The level of effectiveness of the legal frameworks and enforcement mechanisms;
- The level of institutional coordination and collaboration between concerned stakeholders;
- The available level of funding for management.

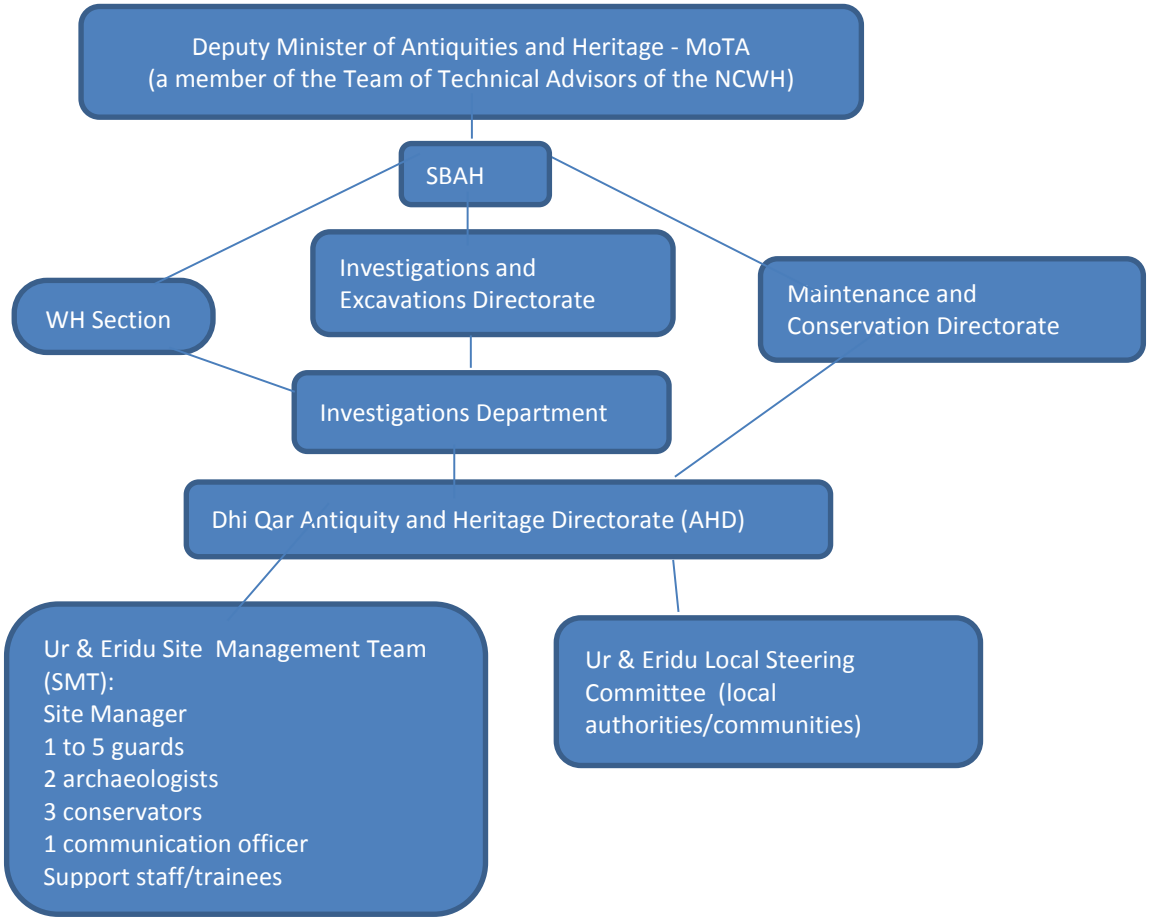
The following key objectives are set for the management of the Ur Archaeological City component:

1. To establish a dedicated capacity in site protection, conservation, monitoring and management.
2. To address natural threats, particularly erosion and humidity, through a set of conservation measures.
3. To establish a regular and efficient monitoring regime.
4. To improve the protection of the site against trespassing and uncontrolled or unmonitored visitors by marking boundaries/buffer zone.
5. To develop research activities at the site.
6. To develop the site for visitors in a sustainable way.
7. To develop suitable and quality management, protection, research, security and tourism infrastructure at the site.
8. To enhance the level of institutional cooperation leading to effective long- term management.
9. To enhance cooperation with foreign archaeological missions as regards conservation, research and capacity building local staff.
10. To provide economic opportunities to local communities at and around the site through research activities and tourism development.
11. To enhance the participation of local communities and authorities in decision making about the site.
12. To communicate knowledge and awareness about the value of the site to national and international audiences.
13. To provide adequate financial allocations to implement priority interventions and projects.

Section X. Proposed Management Structure

The Antiquity and Heritage Directorate (AHD) of Dhi Qar is directly responsible to ensure the conservation, management and monitoring of the component. A shared management structure (a Site Management Team) for the sites of Ur and Eridu should be created by the SBAH in accordance with the provisions of this Management Plan.

Figure 3.1. Management Structure of the Ur Archaeological City and Tell Eridu Archaeological Site Components



Chapter IV. Management Plan of Tell Eridu Archaeological Site

Component Part of

The Ahwar of Southern Iraq: Refuge of Biodiversity and Relict Landscape of the Mesopotamian Cities

Property Nominated by the Government of Iraq in January 2014 for Inscription on the World Heritage List

CONTENTS

Section I. General Overview of Tell Eridu Archaeological Site

Tell Eridu Archaeological Site (modern name Tell Abu Shahrain) is located 40 km south-west of Nasiriyah, the administrative centre of Dhi Qar Governorate, and 12 km to the southwest of Ur Archaeological City.

Tell Eridu is registered in the Official Gazette n° 1465 of 17 October 1935 as an archaeological site, and protected under article 7 of the Iraqi Law of Antiquities and Heritage n°55 of 2002. Registration in the Official Gazette includes the definition of the site's official boundaries and buffer zone.

Table 4.1. Centre Point Coordinates of the Tell Eridu Archaeological Site Component

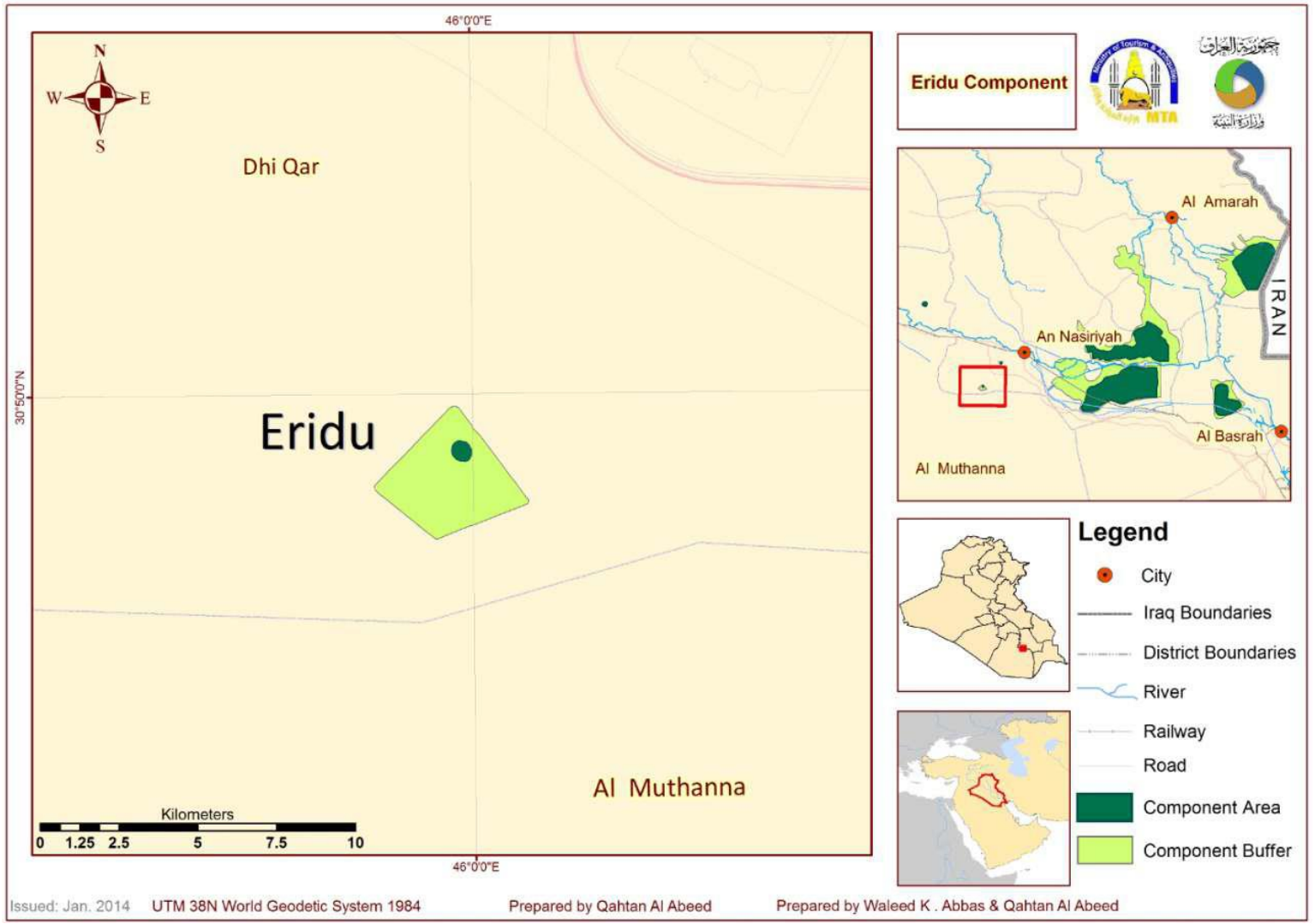
Component	Governorate	Coordinates of the central point
Tell Eridu Archaeological Site	Dhi Qar	N 30 49 01/E 45 59 45

Table 4.2. Size of the Tell Eridu Archaeological Site Component and its Associated Buffer Zone

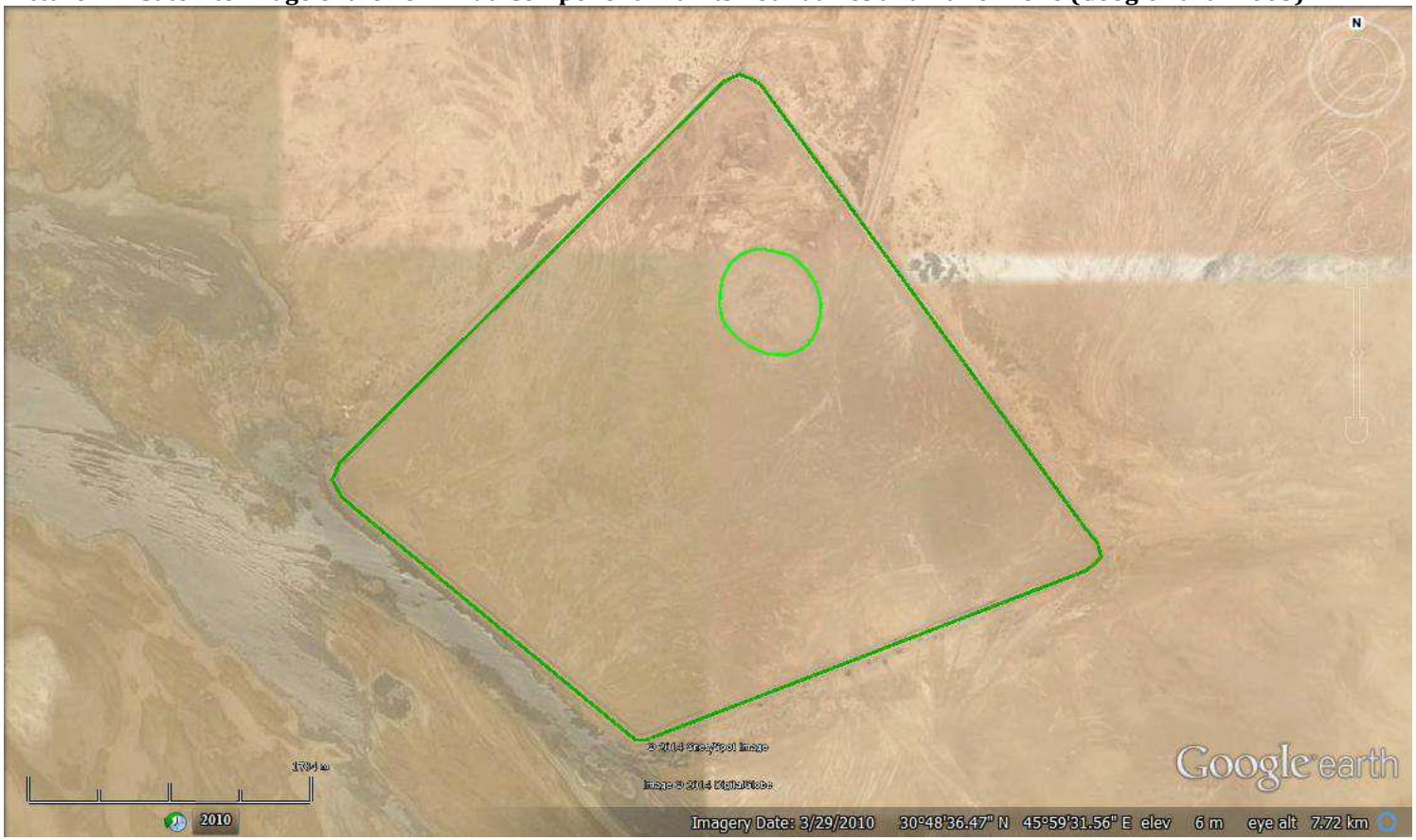
Component	Area of component (ha)	Area of buffer zone (ha)	Governorate
Tell Eridu Archaeological Site	33	1,069	Dhi Qar

Eridu is a typical cone-shaped archaeological mound, or tell, half a kilometre in diameter, rising some 25 meters above the plain. The boundaries of the Tell Eridu as a component of the proposed WH property follow the lower topographic contours of the tell. Six smaller tells are dotted around Tell Eridu. Five of these smaller mounds and the depression where the original lagoon surrounding Tell Eridu formed are included in the buffer zone of the proposed WH component, which coincides with the official boundary of the Eridu archaeological site and is marked on the ground by a sand berm. The component covers 33 ha, and the buffer zone c. 1069 ha.

Map 4.1. Tell Eridu Archaeological Site Component



Picture 4.1. Satellite Image of the Tell Eridu Component with its Boundaries and Buffer Zone (Google Earth 2003).



Section II. Significance

Eridu was the southernmost of a conglomeration of Ubaid settlements and Sumerian cities that grew about temples. Mesopotamian tradition considered Eridu the oldest city in the world predating the Flood. Eridu developed as a settlement during the Ubaid period (c. 5000 BCE) in a unique environment, that of the transitional zone between sea and land with its shifting watercourses, small islands, and deep reed thickets. The settlement was built upon a hillock within a depression, or lagoon, about 6 m below the level of the surrounding land, which allowed the subterranean waters to collect together. The earliest Mesopotamian texts (early third millennium) underline the importance of this lagoon: the features of the landscape – a large body of freshwater at the edges of the desert – was seen as a manifestation of the divine.

Eridu was developed by the Ubaid culture as a major cultic centre, and was connected to Ur by a canal. Throughout Mesopotamian history, its temple complex, which later developed into a ziqqurat, remained a major religious center and provided the mythical paradigm for the divine foundation of cities around a temple built over a body of freshwater, and for the function of cities as primarily cultic centers. Eridu, which name stood for its E-abzu temple to the freshwater god Enki-Ea, was considered by the Sumerians as the place where kingship originated, and remained a source of knowledge and wisdom into late Mesopotamian Antiquity.

The earliest settlement grew into a substantial city of mudbrick and reed houses by c. 2900 BCE, covering 8-10 ha and still supporting an agricultural community around a temple. The city also included an extensive cemetery apparently serving a population larger than that of the settlement. Even in later periods, the urban nucleus of Eridu remained the temple. The temple was rebuilt seventeen times on top of the original shrine, each time with enlargement and additional architectural and decorative features, until Amar-Sin, third rule of Ur III (c. 2047 – 2039 BCE), had the first stepped ziqqurat erected using a mudbrick core and a case of fired bricks set in bitumen. This process can be first observed in Eridu thus making the remains of its ziqqurat and the sacred mound that underlies the most ancient and best-documented testimony of the development of religious architecture and sacred cities in southern Mesopotamia.

Perched on the tell, the remains of the ziqqurat and the sacred mound that underlies it represent the most ancient and best documented testimony of the origin and development of sacred cities and religious architecture in southern Mesopotamia.

Section III. Main Archaeological Features

The ruins of the ziqqurat, dated from the reign of King Amar-Sin (c. 2047 – 2039 BCE) of the Third Dynasty of Ur, stand on top of the tell and are considered the oldest example of this building type. The remains of the ziqqurat are a mudbrick mound heavily eroded and compacted culminating at 9.5 m. The ziqqurat is the only structure visible today on the site and dominates an archaeological site otherwise covered with sand dunes and surrounded by a dramatic desert landscape.

The ziqqurat was briefly excavated by George Taylor in 1855 who described it as consisting of a platform of fine sand enclosed by a sandstone wall, 6 meters high, the corners orientated toward the cardinal points, on the north-western part of which was a pyramidal tower of two stages, constructed of mudbrick, cased with a wall of kiln-burned brick, the whole still standing to a height of about 20 meters above the platform. The summit of the first stage was reached by a staircase on the south-eastern side, 4 to 5 meters wide and 20 meters long, constructed of polished marble slabs, fastened with copper bolts, flanked at the foot by two curious columns. An inclined road led up to the second stage on the northwestern side. Pieces of polished alabaster and marble, with small pieces of pure gold and gold-headed copper nails, found on and about the top of the second stage, indicated that a small but richly adorned sacred chamber, apparently plated within or without in gold, formerly crowned the top of this structure. Around the whole tower was a pavement of inscribed fired brick, resting on a layer of clay some 60 cm thick. On the south-eastern part of the terrace were the remains of several edifices, containing suites of rooms. Inscriptions on the bricks identified the site as that of Eridu.

The site was systematically explored and studied by the Iraqi Directorate General of Antiquities between 1946 and 1949. A sequence of eighteen superimposed mudbrick temples was found underlying the ziqqurat, the latter built 3000 years after the city's founding. The earliest temple, dated to the Ubaid I period (5300-4700 BCE), consisted of a small room with a possible cult niche and an offering table. Ever-larger temples were built on the same site, at each level with addition of more sophisticated features such as interior plastering, then an access ramp. A level XIV, the building had much in common with other monumental buildings of the time found in northern Mesopotamia: a spacious central chamber surrounded by smaller rooms, niches and buttresses in the walls, and a symmetrical layout. At level VIII, a complete change in the building's character and plan occurred with a much larger building and thicker walls. At level VI, more than a thousand year after the initial shrine was erected, the building became monumental. Each new building was constructed by leveling the previous one thus forming platforms which most archaeologists see as providing an original pattern for the construction of ziqqurats.

Section IV. Site Documentation

Following the concession, in 2014, of a research permit to the University of Rome "La Sapienza" mission directed by Prof. Franco D'Agostino, documentation activities at the site have consisted so far in the preparation of a new topographic map of the site. This work is still ongoing. Future work may include new plans, elevations and 3D documentation of standing excavated structures.

Section V. Conservation Issues and Previous Interventions

Major archaeological excavations were conducted in Eridu between 1946 and 1949. Since then, no other excavation, survey, or conservation and maintenance work has been conducted at the site, resulting in the progressive reburial of all excavated structures, with the exception of the ziqqurat and other nearby structures.

The ziqqurat is heavily eroded due to its exposure to the elements for over 70 years, especially in its northwest and southwest sides, and will need accurate condition assessment and a conservation plan in order to consolidate and preserve it. Significant damage occurred as a result of the particularly heavy rains, which have caused landslides and the formation of holes in the ground. All other structures, such as the Enki Temple and other temples, the Ubaid tombs and the Uruk period buildings identified and published after the excavation campaigns of 1946-1949 are presently reburied under the sand and their state of conservation is unknown.

Section VI. Current and Planned Research and Conservation

In early 2014 the SBAH granted the Italian Mission directed by Prof. F. D'Agostino (University of Rome "La Sapienza") the permission to conduct archaeological investigations at the site. Work so far has consisted in undertaking preliminary surface surveys and re-mapping of the site. After the excavation and re-excavation of some of the structures, a conservation plan will be developed.

Section VII. Site Protection

Site Security and Policing
Eridu is not officially open for visitation, and it has been safe from looting and other man-made damages. The site is uninhabited, only accessible through a 10 km dirt road and otherwise surrounded by the desert. It is patrolled regularly by the Antiquity and Heritage Police positioned at Ur Archaeological City (ca. 17km away).

Site Vigilance
Daily visits take place by a guard employed by Dhi Qar AHD and who lives in Nasiriyah (ca. 20km away from the site). The Antiquity and Heritage Police intends as well to send more patrols to the site.

Challenges
- The site is relatively isolated and the remains are mostly buried under heaps of sand.
- The security threat on site is not established.

Section VIII. Other Factors Affecting the Site

Environmental factors, especially rain and wind, substantially contribute to deterioration and decay of the fragile mudbrick material characterizing the exposed structure of the ziqqurat.

Development Pressures
Except for a metal observation tower erected by archaeologists, there is no modern construction or infrastructure on the site.

Visitation
No visitors are recorded at the site, there is therefore no impact from visitation. Furthermore, there are no plans to encourage visitation for the years to come on account of the sites' remoteness, challenges to ensure its protection against visitors, and because there are little visible remains. Plans for visitation can only be considered after a comprehensive, multi-year, research and conservation project is implemented.

Table 4.3. Key Threats to the Conservation of Tell Eridu Archaeological Site

Threats	Level
Infrastructure Development	Very low
Agriculture Expansion	Very low
Mining/oil	Very low
Solid Waste	Very low
Climate Change	Very low
Desertification	Very low
Military/security activities	Very low
Natural Catastrophes	Very low
Tourism and Visitor Pressure	Very low
Lack of regular maintenance/ conservation interventions	Medium
Improper conservation interventions	Low
Water and/or wind erosion	Very high
Invasive vegetation growth	Medium
Uncontrolled access/trespassing	Medium

Section IX. Management Objectives

The Tell Eridu Archaeological Site component is affected mostly by natural factors, lack of maintenance and monitoring, limited research and insufficient policing, which dictate its management objectives. These address the protection, study and long-term conservation of the archaeological remains. There is no plan for opening the site to visitors however interpretation should be provided about Eridu at the other components of the property open to visitation.

The main factors influencing the management of the Tell Eridu Archaeological Site component are:

- The level of maintenance in the face of continuous erosion, vegetation growth and humidity;
- The level of control of potential trespassers;
- Conservation, research and monitoring needs;
- The level of effectiveness of the legal frameworks and enforcement mechanisms;
- The level of institutional coordination and collaboration between concerned stakeholders;
- The available level of funding for management.

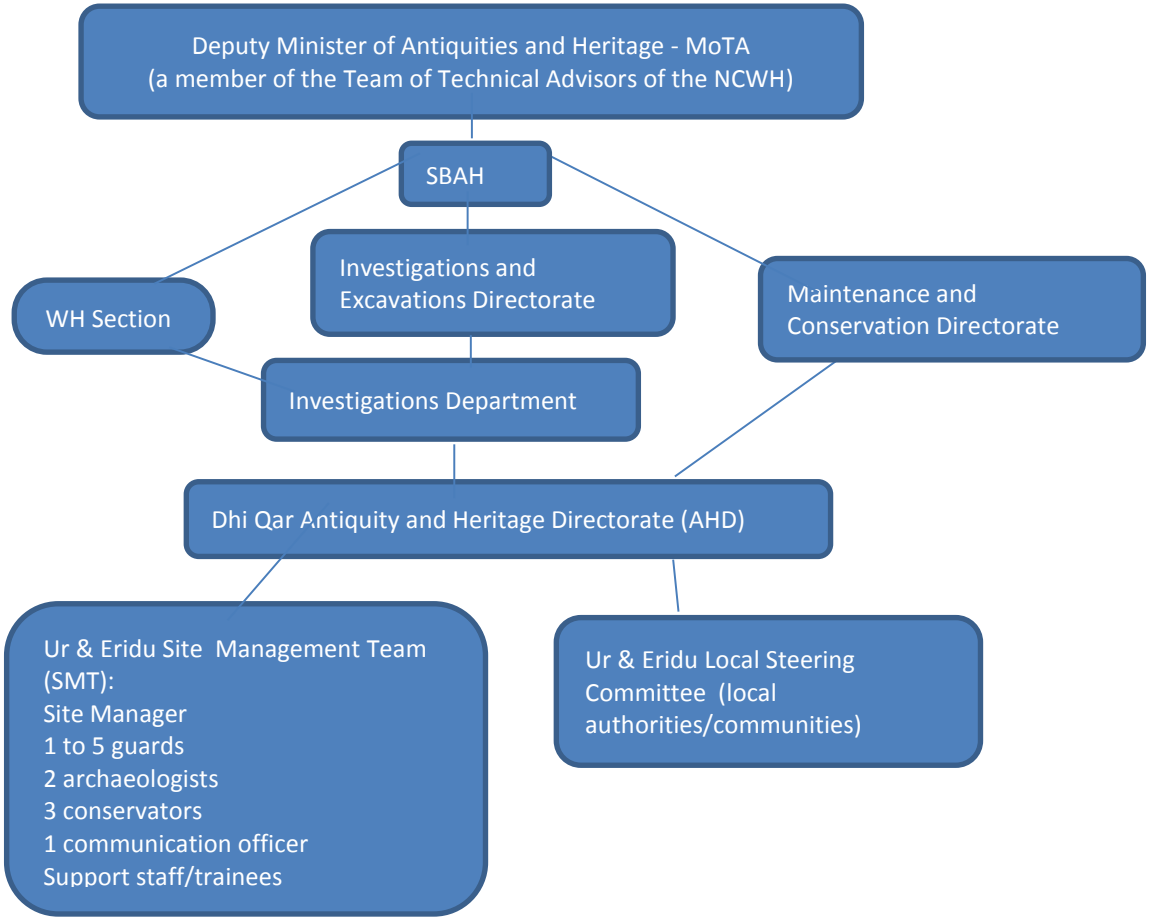
The following key objectives are set for the management of the Tell Eridu Archaeological Site component:

1. To improve capacities for site protection, conservation and management.
2. To address natural threats, particularly erosion and humidity, through a set of conservation measures.
3. To establish a regular and efficient monitoring regime.
4. To improve the protection of the site against trespassing by marking boundaries/buffer zone, and improving policing.
5. To develop basic facilities at the sites in order to facilitate research, site protection and monitoring.
6. To enhance the level of institutional cooperation leading to effective long-term management.
7. To enhance cooperation with foreign archaeological missions as regards conservation, research and capacity building for dedicated Iraqi staff.
8. To enhance the participation of local communities and authorities in decision making about the site.
9. To communicate knowledge and awareness about the value of the site to national and international audiences.
10. To provide adequate financial allocations to implement priority interventions and projects.

Section X. Proposed Management Structure

The Antiquity and Heritage Directorate (AHD) of Dhi Qar is directly responsible to ensure the conservation, management and monitoring of the component. A shared management structure (a Site Management Team) for the sites of Ur and Eridu should be created by the SBAH in accordance with the provisions of this Management Plan.

Figure 4.1. Management Structure of the Ur Archaeological City and Tell Eridu Archaeological Site Components



Chapter V. Implementation Plan for the Cultural Components

of

The Ahwar of Southern Iraq: Refuge of Biodiversity and Relict Landscape of the Mesopotamian Cities

Property Nominated by the Government of Iraq in January 2014 for Inscription on the World Heritage List

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partner(s)	Priority	Outcome(s)
1. Protection	*1.1 Activate NCWH*	Formalize the NCWH	Invite ministries concerned by the property (MoTA, MoWR, MoO, MoA, etc.) to be represented in NCWH and approve its mandate	Mid 2015	MoE	Minister's Cabinet	MoTA and other concerned ministries	High	NCWH activated
			Establish a Team of Technical Advisors (TTA) under the NCWH that will play the major coordination role within and between concerned government agencies (federal and governorate levels)	End 2015	MoE	Minister's Cabinet	MoTA and other concerned ministries	High	A Team of Technical Advisors under the NCWH established
		Review draft legislation	Form an Antiquity and Heritage Law Review Committee (AHLRC)	End 2015	SBAH	Legal Advisor	Ministry of Justice (MoJ)	High	AHLRC formed
			Identify notions and legal tools that require integration into the Law	Early 2016	AHLRC	Legal Advisor	MoJ	High	Workshops to discuss revisions completed
			Prepare draft legal clauses and provisions	Mid 2016	AHLRC	Legal Advisor	MoJ	High	Draft law completed

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Organize briefings to influential politicians in the government as well as to parliamentarians in order to lobby in favor of adopting the draft legislation	Mid 2016	AHLRC	Legal Advisor	MoJ	High	Briefings conducted as per plan
			Submit the revised draft law for ratification by the parliament	End 2016	SBAH- AHLRC	Legal Advisor	MoJ	High	Draft law submitted to parliament
	1.3 *Integrate national, regional and local plans*	Form inter-ministerial committee	Agree on a vision for the development of the WH property	Early 2016	NCWH	TTA	Various ministerial reps	Medium	Interministerial committee formed
			Promote the vision and establish its feasibility	2016	NCWH	TTA	Various ministerial reps	Medium	Meetings promoting vision conducted
			Integrate the vision into national, regional and local development plans	End 2016	NCWH	TTA	Various ministerial reps	Medium	Vision adopted by development plans
			Develop guidelines for enacting the vision at all levels	2017	NCWH	TTA	Various ministerial reps	Medium	Guidelines established

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
	1.4. Improve planning processes	Develop territorial planning capacity at the core of SBAH	Recruit a regional/urban planner within the internal staff of SBAH	2017	SBAH		Civil Service Authority	Medium	Planner recruited
		Involve planner in planning committees	Communicate the scope of work of the planner and ask for him/her to be present at relevant planning workshops	2017	SBAH			Medium	Letters issued and follow-up made
		Develop the processes and procedures for the operation of the planner	Ask planner to develop his/her operational procedures	2017	SBAH			Medium	Operational procedures developed
			Review, approve and amend operational procedures	2017	SBAH			Medium	Operational procedures approved
	1.5. Improve site protection	Establish exact boundary coordinates for all components	Review existing plans and commission topographical survey	End 2015	SBAH	WH Section		High	Survey completed

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Decide on type of boundary markers	Solicit designs and offers from different contractors	Early 2016	SBAH	WH Section		High	Design selected
		Install boundary markers and make local community aware of their existence and significance	Commission the production and installation of markers	Mid 2016	SBAH	WH Section		High	Markers installed
		Inform targeted national and local stakeholders about the boundaries and buffer zones of the WH property	Identify the national players with impact on the boundaries and buffer zones of the components, such as the planning authorities; identify local communities adjacent to components and inform them of the significance of the nomination, and the boundary and buffer zone designations.	Early 2016	SBAH	WH Section		High	Information campaign completed

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Develop a health and safety risk plan for the WH components	Appoint the team to develop a health and safety risk plan for the WH components	End 2015	SBAH		Civil Defence Authorities	Medium	Team appointed
			Approve the plan and cost implications	Early 2016	SBAH			Medium	Plan approved
			Implement the plan including fencing off areas that could be hazardous to visitors	Mid 2016	SBAH		Civil Defence Authorities	Medium	Plan implemented
2. Research & Conservation	*2.1. Research planning*	Develop Research strategy for cultural components	Stakeholder identification	End 2015	SBAH	Director of Excavations	National and foreign missions	High	Stakeholders identified
			Stakeholder consultation	Early 2016	SBAH	Director of Excavations	National and foreign missions	High	Stakeholders consulted
			Develop strategy and incorporate in the Management Plans	Mid 2016	SBAH	Director of Excavations	National and foreign missions	High	Strategy is finalized
			Develop annual targets with budget estimates	Yearly	SBAH	Director of Excavations	National and foreign missions	High	Strategy is operative

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Integrate research strategy for cultural component into comprehensive research strategy for property	Coordinate joint strategy with concerned institutions	Mid 2017	SBAH		MoE,, MoWR	High	Integrated research strategy operational
		Manage research permits	Ensure that research proposals are in line with strategy	Yearly	SBAH	Director of Excavations		Medium	
			Streamline approval process	Yearly	SBAH	Director of Excavations		Medium	
		Prepare guidelines	Prepare excavation guidelines	End 2016	SBAH	Director of Excavations	National and foreign missions	High	Guidelines are published
			Prepare documentation guidelines	End 2016	SBAH	Director of Excavations	National and foreign missions	High	Guidelines are published
			Prepare conservation guidelines	End 2016	SBAH	Director of Conservation	National and foreign missions	High	Guidelines are published

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Prepare a standardized reporting format for archaeological projects	End 2016	SBAH	Director of Excavations	National and Foreign missions	High	Forms are prepared
			Provide guidelines and reporting format for missions	Early 2017	SBAH	Director of Excavations	National and Foreign missions	High	Missions are informed
			Monitor guidelines use and implementation	Yearly	SBAH	Directorates		High	Monitoring is conducted
			Adjust and improve	As necessary	SBAH	Directorates		Medium	
		Establish rules and regulations	Establish rules and regulations following guidelines recommendations	Early 2017	SBAH	Directorates	National and Foreign missions	High	Rules and regulations are published
			Include conservation and site stabilization as part of the missions' obligations (major conservation projects will require separate procedures of approval and implementation)	Early 2017	SBAH	Directorates	National and Foreign missions	High	Amend TOR and contract binding Foreign Missions to conservation and site stabilization, during and after excavations
			Monitor implementation	Yearly	SBAH	Directorates		High	Monitoring is conducted

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Encourage research	Develop, in consultation with existing missions, a list of research priorities. Support, sustain and fund whenever possible research by Iraqi universities aligned with the priorities of the research strategies for the property	Mid 2016	SBAH	Director of Excavations	National and foreign missions	High	Research priorities identified
		Develop public archaeology program	Develop a program of public archaeology and community participation in coordination with the archaeological missions	2018	SBAH	Director of Excavations	National and foreign missions	Medium	Program developed
			Prepare and implement annual programs	Yearly	SBAH	Director of Excavations		Medium	Programs implemented
			Coordinate public participation with local schools and universities	Yearly	SBAH	Director of Excavations	National and foreign missions	Medium	Coordination established
		Complete the sites' archaeological surveys	Coordinate actions with existing missions	End 2015	SBAH	Director of Excavations	National and foreign missions	High	

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Gather documentation	Early 2016	SBAH	Director of Excavations	National and foreign missions	High	Documentation is gathered
			Prepare research plan	Mid 2016	SBAH	Director of Excavations	National and foreign missions	High	Plan is prepared
			Conduct field surveys	As of 2017	SBAH	Director of Excavations	National and foreign missions	High	Surveys are conducted
			Publish results	As of 2018	SBAH	Director of Excavations	National and foreign missions	High	Results are published
		Develop GIS	Coordinate with existing missions the development of an integrated, web-based GIS to manage the sites' documentation	2016	SBAH	Director of remote sensing and documentation	National and foreign missions	High	System is developed
			Select software and develop data structure	2016	SBAH	Director of remote sensing and documentation	National and foreign missions	High	Structure is developed, software selected
			Purchase hardware	2017	SBAH	Director of remote sensing and documentation		High	Hardware is purchased

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Train personnel	2017	SBAH	Director of remote sensing and documentation		High	Training is conducted
			Collect and enter data	2018	SBAH	Director of remote sensing and documentation	National and Foreign missions	High	Data is procured and entered
			Maintain system	Yearly	SBAH	Director of remote sensing and documentation	National and Foreign missions	Medium	System is maintained
		Develop object inventory and loan system	Coordinate with existing missions the development of an integrated, web-based inventory to manage the sites' finds	2016	SBAH	Director of museums	National and foreign missions	High	System is developed
			Select software and develop data structure	2016	SBAH	Director of museums	National and foreign missions	High	Structure is developed, software selected
			Purchase hardware	2017	SBAH	Director of museums		High	Hardware is purchased
			Train personnel	2017	SBAH	Director of museums		High	Training is conducted

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Collect and enter data	2018	SBAH	Director of museums	National and foreign missions	High	Data is procured and entered
			Maintain system	Yearly	SBAH	Director of museums	National and foreign missions	Medium	System is maintained
		Establish Documentation centre	Establish documentation centre in Baghdad, with satellites in Nasiriyah, and Muthanna	2016	SBAH	Director of remote sensing and documentation (DRSD)	National and foreign missions	Medium	Centers are established
			Purchase hardware and software, assign personnel	2017	SBAH	DRSD		Medium	Hardware and software is purchased
			Train staff	2017	SBAH	DRSD	National and foreign missions	Medium	Staff is trained
			Collect data and documents	2018	SBAH	DRSD	National and foreign missions	Medium	Data is collected
			Scan hardcopy documents	2018	SBAH	DRSD	National and foreign missions	Medium	Documents are scanned

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Develop a document management system (web-based)	2018	SBAH	DRSD	National and Foreign missions	Medium	Document management system is developed
			Define rules for external access to data and documents	2019	SBAH	DRSD		Medium	Rules are defined
		Establish "study days"	Define the format of a scientific event to be held in Iraq every two years to present results of scientific work on the three sites	2018	SBAH	Director of Excavations		Medium	Scientific event is planned and conducted
	2.2. Conservation standards and planning	Develop conservation plans	Conduct a conservation assessment establishing level of threats to structures and their values	Mid 2016	SBAH	Director of Conservation	National and foreign missions	High	Assessment is conducted
			Develop a list of priorities on the basis of the assessment	End 2016	SBAH	Director of Conservation	National and foreign missions	High	Priority list is published
			Develop conservation plans for every excavated building/ area along minimal intervention philosophy	Yearly	SBAH	Director of Conservation	National and foreign missions	High	Conservation plans published

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Develop monitoring and maintenance plans and related guidelines	Mid 2017	SBAH	Director of Conservation	National and foreign missions	High	Plans and guidelines are prepared
		Develop interpretation and presentation plans	Conservation plans to be supported, for the sites to be presented to the public, by an interpretation and presentation plan	End 2019	SBAH	Director of Conservation	National and foreign missions	Medium	Plans are prepared
		Train staff	Identify needs among staff	End 2015	SBAH	Director of Conservation		High	Needs identified
			Provide training of 50% concerned staff in conservation, monitoring, maintenance techniques and risk preparedness	End 2016	SBAH	Director of Conservation	National and foreign missions	High	Training provided
			Complete training of 100% concerned staff	End 2017	SBAH	Director of Conservation	National and foreign missions	High	Training completed
	2.3. Conservation actions	Develop mid-term objectives	Identify specific projects to be implemented at every major site	End 2016	SBAH	Director of Conservation	National and foreign missions	Medium	Projects are identified

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Include projects in Management Plans	Early 2017	SBAH	Director of Conservation		Medium	Projects included in Management Plans
			Estimate cost and develop yearly plans	Yearly	SBAH	Director of Conservation		Medium	Plans are developed
		Develop guidelines and specifications	Develop guidelines and specifications to address identified common problems at the sites	Mid 2017	SBAH	Director of Conservation	National and Foreign missions	High	Guidelines are developed
			Include requirements concerning staff expertise	Mid 2017	SBAH	Director of Conservation		High	Requirements included
			Ensure the adoption of the guidelines by all parties involved	End 2017	SBAH	Director of Conservation		High	Guidelines adopted by all parties
		Develop reporting format	Develop reporting format, including standards for photography and graphic documentation	2017	SBAH	Director of remote sensing and documentation	National and Foreign missions	High	Reporting format is developed
		Conduct impact assessments	Every modification to status quo to be subjected to an impact assessment	Continuous	SBAH	Director of Conservation		High	Impact assessments are prepared

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Conduct assessment internally or by outsourcing them to specialists	Continuous	SBAH	Director of Conservation		High	Assessment completed
		Monitor construction works	Assign staff to monitor construction works	Continuous	SBAH	Director of Conservation		High	Works are monitored
			Staff to provide reports on work progress	Continuous	SBAH	Director of Conservation		High	Reports are delivered
			Establish protocols to be followed throughout the monitoring process	2016	SBAH	Director of Conservation		High	Protocols are established
		Prevent graffiti	Improve guarding	Continuous	SBAH	Site manager		Medium	Specific protocols implemented to counteract graffiti
			Raise awareness by providing information on damage produced	2016	SBAH	Director of Conservation		Medium	Communication plan developed and implemented
		Address drainage problems	Document water drainage across sites	2016	SBAH	Director of Conservation	National and foreign missions	High	Water drainage documented

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Study systems to divert water from sensitive areas	2017	SBAH	Director of Conservation	National and foreign missions	High	Water diversion system is planned
			Conduct pilot project in one or more areas	2018	SBAH	Director of Conservation	National and foreign missions	High	Pilot project is established
			Implement solutions across all components	2019	SBAH	Director of Conservation	National and foreign missions	High	Solutions propagated to problem areas
		Establish conservation laboratories in Uruk and Ur	Plan laboratories' function and staffing	2017	SBAH	Director of Conservation	National and foreign missions	Medium	Laboratories are planned
			Prepare project and budget estimate	2017	SBAH	Director of Conservation	National and foreign missions	Medium	Project is prepared
			Identify suitable locations (preferably not inside boundaries/buffer zones)	2017	SBAH	Director of Conservation	National and foreign missions	Medium	Locations for labs are identified
			Build laboratories	2018	SBAH	Director of Conservation		Medium	Labs are built

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Procure equipment	2019	SBAH	Director of Conservation		Medium	Equipment is procured
			Appoint and train staff	2019	SBAH	Director of Conservation		Medium	Staff is appointed and trained
	2.4. Monitoring regime and practice	Establish monitoring and maintenance regime	Establish priority actions and budget on a yearly basis, coordinated by local Site Management Teams (SMT)	End 2015	SBAH	Site manager	National and foreign missions	High	Actions and budget are defined
			Develop separate guidelines and protocols for archaeology and infrastructures present on site	Early 2016	SBAH	Site manager	National and foreign missions	High	Guidelines and protocols are prepared
			Develop dedicated forms and a database to enter the information collected throughout the monitoring and maintenance activities	Mid 2016	SBAH	Site manager	National and foreign missions	High	Forms and database are prepared
			Monitor visitor behaviour	End 2016	SBAH	Site manager		Medium	Visitor behaviour is monitored
			Train staff	End 2017	SBAH	Site manager		Medium	Staff is trained

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Assign permanent guards to specific sensitive areas during high visitation periods	Continuous	SBAH	Site manager		Medium	Guards are assigned
3. Capacity Building	*3.1. Establish technical and professional capabilities*	Allocate the necessary human resources to constitute the management contingent at the cultural components	Identify human resources needs	End 2015	SBAH	WH Section	Human Resource Department at MoTA	High	Needs identified
			Prepare scope of work and job descriptions of needed staff	End 2015	SBAH	WH Section	Human Resource Department at MoTA	High	Scope and JD's drafted
			Conduct internal selection and appointment processes	Mid 2016	SBAH	WH Section	Human Resource Department at MoTA	High	Staff selected and appointed
			Build the capacities of the new staff via the process mentioned under 3.2	End 2016-End 2017	SBAH	WH Section	Erbil Conservation Centre – ICCROM, etc.	Medium	Training programs implemented

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Embed the new capacities within the foreign mission teams	2016	SBAH	WH Section	Foreign missions	Medium	Hands on training with foreign teams completed
			Capacities start implementing provisions of site management plan	2017	SBAH	WH Section		Medium	Management Plan under implementation
	3.2. *Establish capacity building activities*	Establish training programs in collaboration with Conservation Centre in Erbil	Sign MOU with centre and agree on program resources	2016	SBAH	WH Section	Erbil Conservation Centre	High	MOU signed and program agreed upon
		Organise capacity building programs with Athar Program	Sign MOU with ICCROM and agree on program	Early 2016	SBAH	WH Section	ICCROM Centre	High	MOU signed and program agreed upon
		Organise hands on training programs with foreign missions	Sign MOU with foreign missions and agree on programs	Early 2016	SBAH	WH Section	Foreign missions	High	MOU signed and program agreed upon

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Implement programs	Rotate staff through the various programs	2017	SBAH	WH Section	Erbil Centre/ ICCROM	High	Staff undertaking training
4. Management and Infrastructure Development	*4.1. Attain minimum required management structures*	Site Management Teams (SMTs) appointed and active	SMTs in charge of implementing the provisions of the Management Plans and sustaining them	Early 2017	SBAH	WH Section		High	SMTs officially appointed
			SMTs take charge of putting together the Annual Plans	Early 2017	SBAH	WH Section		High	Annual Plans developed and approved by SBAH
			Management Plans reviewed	Yearly	SBAH	WH Section		High	Management Plans reviewed
	4.2. Establish minimum required infrastructures	Develop site infrastructure masteplan	Master plan for management infrastructure at Uruk and Ur developed and approved	End 2016	SBAH	WH Section		High	Master plan developed
			Funds for master plan secured over a period of two to three years	Early 2017	SBAH	WH Section	Finance Dept. Council of Ministers	High	Funds secured

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Build structures	a. Management offices	2017	SBAH	WH Section		Medium	Structures built
			b. Conservation laboratories and research/documentation centers (including accommodation for excavation teams/researchers)	2018	SBAH	WH Section		Medium	Structures built
			c. Accommodation for additional site guards	2018	SBAH	WH Section		Medium	Structures built
			d. Access roads, parking structures	2017	SBAH	WH Section		Medium	Structures built
			e. Temporary visitor centers and temporary paths	2017	SBAH	WH Section		Medium	Structures built
			h. Pollution control, including visual pollution (removing electric poles and buildings just outside buffer zones)	2017	SBAH	WH Section		Medium	Structures removed

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
5. Interpretation, Education, Visitation and Tourism	*5.1. Developing an interpretation and education plan*	Develop Interpretation plan	Consult stakeholders	2017	SBAH	Director of Excavations	National and foreign missions	Medium	Stakeholders identified and consulted
			Gather scientific information from scholars and missions	2017	SBAH	Director of Excavations	National and Foreign missions	Medium	Scientific information is gathered
			Gather oral histories from local community	2017	Ministry of Culture (MoC) Universities	Intangible Heritage/ Anthropology Sections	Local community	Medium	Oral histories are recorded
			Hire interpretation specialist and interpretative writers	2018	SBAH	Director of Excavations	National and foreign missions	Medium	Interpretation specialist is hired
			Develop plan	2018	SBAH	Director of Excavations	National and foreign missions	Medium	Plan is developed
			Develop interpretative content in Arabic and English	2019	SBAH	Director of Excavations	National and foreign missions	Medium	Content prepared

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Develop educational activities and kits for primary and secondary schools	Consult with education specialist	2017	SBAH	Education dept?	Ministry of Education (MoEd)	High	Education specialist is hired/consulted
			Develop plan and kits	2018	SBAH	Education dept?	MoEd	High	Education kit is published
			Train teachers to the use of kits	2019	SBAH	Education dept?	MoEd	High	Teachers are trained
		Encourage the use of "World Heritage in Young Hands" UNESCO kit	Coordinate with UNESCO the adoption of the kit in local schools	2017	SBAH	Education dept?	UNESCO, MoEd	High	Kit is delivered and distributed
			Train teachers to their use	2018	SBAH	Education dept?	UNESCO, Education Authorities	High	Teachers are trained
	5.2. Preparing for increased visitation and tourism	Develop tourism management plan	Identify priorities and consult stakeholders	2017	MoTA, SBAH		Tourism Board, foreign and national Tour Operators	Medium-Low	Stakeholders consulted

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Conduct visitor survey	2017	MoTA, SBAH		Tourism Board, foreign and national Tour Operators (TOs)	Medium-Low	Visitor survey completed
			Study and develop visitation circuit and means of circulation inside the sites; provide disable-friendly access	2018	MoTA, SBAH		Tourism Board, TOss	Medium-Low	Circulation study finalized
			Define areas of temporary or permanent closure	2016	SBAH			Medium-Low	Areas identified
			Develop rules and regulations for visitor and vehicle circulation	2017	MoTA, SBAH		Tourism Board	Medium-Low	Rules and regulations finalized
			Develop site use guidelines and regulations	2018	MoTA, SBAH		Tourism Board	Medium-Low	Guidelines finalized
			Finalize plan	2019	MoTA, SBAH		Tourism Board	Medium-Low	Plan finalized
		Develop temporary visitor facilities	Develop and install temporary facilities outside core zones	2017	SBAH, MoTA	Site manager	National and foreign missions	Medium	Temporary facilities installed

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Monitor visitation	Develop monitoring tools	2016	SBAH, MoTA	Site manager		Medium	Monitoring tools developed
			Monitor visitation and introduce corrective measures to plan	2019	SBAH, MoTA	Site manager		Low	Corrective measures identified
			Conduct regular visitor surveys	Yearly	SBAH, MoTA	Site manager		Low	Visitor surveys conducted
		Develop tourism infrastructure concepts	Form Committee	2017	SBAH, MoTA		National and foreign missions & TOs	Medium-High	Committee formed
			Organize international competition	2017	SBAH, MoTA		National and foreign missions & TOs	Medium-High	Competition organized
			Select judging panel	2017	SBAH, MoTA		National and foreign missions & TOs	Medium-High	Judges selected
			Hold competition and select best concept	2018	SBAH, MoTA		National and foreign missions & TOs	Medium-High	Competition held and winner announced

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Develop consistent signage	Form Committee	2017	SBAH, MoTA		National and foreign missions	Medium-High	Committee formed
			Organize international competition	2017	SBAH, MoTA		National and foreign missions	Medium-High	Competition organized
			Select judging panel	2017	SBAH, MoTA		National and foreign missions	Medium-High	Judges selected
			Hold competition and select best concept	2018	SBAH, MoTA		National and foreign missions	Medium-High	Competition held and winner announced
		Develop promotional material	Develop concepts through partnership with a specialized agency	2017	SBAH, MoTA		National and foreign missions & Tourism Board (TB)	Medium	Concepts developed
			Prepare official guidebook and brochure	2018	SBAH, MoTA		National and foreign missions & TB	Medium	Brochure and guidebook completed
		Train tour operators and guides	Prepare course material	2018	SBAH, MoTA		National and Foreign missions & TB	Medium	Course material prepared

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Select participants	2018	SBAH, MoTA		National and Foreign missions & TB	Medium	Participants selected
			Deliver course	2019	SBAH, MoTA		National and Foreign missions & TB	Medium	Course delivered
6. Public awareness and community participation	*6.1. Community participation*	Engage key stakeholders in development of a full Vision Statement for the property	Hold a workshop to endorse the Consolidated Management Plan and develop a full Vision Statement	End 2015	MoTA + MoE		Concerned ministries and local authorities	High	Management Plans endorsed by key stakeholders and Vision Statement agreed upon
		Establish participatory local institutional mechanisms	Establish two Local Steering Committee (LSC: one for Eridu and one for Ur + Uruk formed mainly from primary stakeholders and incorporate them in management structure	Early 2016	SBAH		TTA, NGOs	High	Local Steering Committee established and involved in management

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
		Reach out to NGOs, schools, universities, etc.	Formalize agreements with MoEd, universities, NGOs to engage teachers, students and members in site activities coordinated by SBAH	2017	SBAH		NGO, MoEd, universities	Medium	Agreements signed
			Conduct educational and outreach activities	2018	SBAH		NGO, MoEd, universities	Medium	Activities conducted
			Organize "site days"	2018	SBAH		NGO, MoEd, universities	Medium	Site Days organized
	6.2. Increasing site revenues and cooperation	Increase revenues	Develop budget estimates and yearly budget plans for all programmed activities	Yearly	SBAH, MoTA			High	Budget estimates and plans prepared
			Establish mechanisms for coordination among agencies and monitoring of project expenditures	End 2015	SBAH, MoTA			High	Mechanisms established
			Coordinate budget allocations between MoTA and SBAH	Yearly	SBAH, MoTA			High	Coordination established

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Develop an investment and marketing strategy to allow for income to be obtained from sources other than the Government of Iraq	End 2015	SBAH, MoTA		Private companies and donors	High	Investment and marketing strategy developed
		Develop fundraising and cooperation projects	Involve national, international NGOs and universities in joint projects for conservation and research	2017	SBAH, MoTA		National and foreign missions, NGOs, universities	High	Partners are identified
			Seek international technical and financial assistance in the implementation of conservation and research initiatives	On-Going	SBAH, MoTA		National and foreign missions, NGOs, universities, international heritage organizations	High	Assistance is found
			Submit project proposals to national and international donor agencies and governments	2018	SBAH, MoTA		Donors	High	Proposals prepared and submitted

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Develop standard agreements for the involvement of international agencies in conservation and development projects	2018	SBAH, MoTA		Donors	High	Agreements are prepared
	6.3. Supporting economic development	Explore opportunities for culture-based development	Commission assessments, surveys and studies to explore opportunities	2017	SBAH, MoTA		Local community and investors	Medium	Studies are commissioned
			Collaborate with local communities to explore the studies' outcomes	2018	SBAH, MoTA		Local community	Medium	Local community is consulted
			Liaise with other economic development projects in the area and explore partnership opportunities	2018	SBAH, MoTA		Local government	Medium	Projects are identified and consulted
			Develop proposals and pilot projects	2019	SBAH, MoTA			Medium	Proposals are developed

Main Heading	Strategy	Action	Steps	Time Frame	Entity Responsible	Activity Coordinator	Potential Partners	Priority	Outcome(s)
			Approach and encourage donors to provide help with loans or microfinancing initiatives	2019	SBAH, MoTA		Donors	Medium-Low	Donors are approached, help is provided
		Develop marketing options	Develop an official logo or label to use on locally produced items	2018	SBAH, MoTA		Tourism Board	Medium-Low	Logo/label is developed
			Study and recommend a range of products that could be developed under the official logo/label	2018	SBAH, MoTA		Investors, local community	Medium-Low	Products are identified
			Study a marketing campaign in collaboration with Tourism Board	2019	SBAH, MoTA		Tourism Board	Medium-Low	Marketing campaign is developed
			Involve investors, local government, and tourism entrepreneurs in implementing the marketing campaign	2019	SBAH, MoTA		Local governments and investors	Medium-Low	Marketing campaign is implemented