Servicio Nacional del Patrimonio Cultural

REQUEST FOR MINOR BOUNDARY MODIFICATION:

BUFFER ZONES

Humberstone and Santa Laura Saltpeter Works Chile (1178)

February 1, 2019

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REQUEST FOR MINOR BOUNDARY MODIFICATION: BUFFER ZONES Humberstone and Santa Laura Saltpeter Works Chile (1178)

I. Introduction

In this document, the State of Chile requests the minor boundary modification of the Buffer Zone of the World Heritage Site Humberstone and Santa Laura Saltpeter Works, inscribed on both the World Heritage List and the World Heritage List in danger, in 2005. This, as requested by the World Heritage Committee in its Decision 42 COM 7A.9, paragraph 5, in which it recognizes the solution reached for the protection of the proposed Buffer Zone, by declaring this area a National Monument under the Typical Zone category.

At the time of requesting the registration, a Buffer Zone of 12,055 hectares was reported, which surrounded both saltpeter works. This area was formed by desert landscape, other saltpeter works, tailing cakes, exploited saltpeter pampas and railway network, among others. Its objective was to maintain their environmental and historic values as well as the landscape and the views associated with the nominated property. Its legal protection and regulation was thought to be carried out through the inclusion of the area in the Municipal Zoning Plan of Pozo Almonte (Housing and Urban Development Law).

Finally, the non-feasibility for this legal protection was determined, given that in Chile, Communal Regulatory Plans do not include rural areas, which is the situation in which the site and its surroundings are, and the territorial planning instruments that consider rural areas are larger scale and only have an indicative nature.

For this reason, a different protection figure was sought. It was found in the National Monuments Law (1970), with its recent regulation of Typical Zones (2017), which establishes norms for the regulation of these zones.

The need for effective management of the buffer zone led to limit the originally proposed area, maintaining an extensive portion consisting of public lands granted in major part to the administrator of the Site, public lands destined to the Chilean Army that had heritage traces and public strips to the west and south of the site, which include main territorial connectivity routes -under the responsibility of the Ministry of Public Works- and lands of the Ministry of National Assets.

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II. Background requested in Annex 11 of the Operational Guidelines of the World Heritage Convention, for minor boundary modification.

1) Area of the Humberstone and Santa Laura Saltpeter Site (in hectares):

a.1) Area of the Site at the time of registration, year 2005				
World Heritage Site	585 ha.			
Buffer Zone	12,055 ha.	Note: Includes the area of the World Heritage Site. Subtracting the Property, the surface of the Buffer Zone is 11,470 ha.		
a.2) Minor boundary modification for the year 2011 (35 COM 8B.58).				
World Heritage Site	573.48 ha.			
b) Current request for minor boundary modification				
Buffer Zone	2,399.87 ha.	Note: Includes the area of the World Heritage Site. Subtracting the Property, the surface of the Buffer Zone is 1,826.39 ha.		

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2) Description of the modification:

The modification consists in a reduction of the original Buffer Zone, which is approximately 13.5 km long by 9 km wide. The proposed area is around 4.35 km long and 6.1 km wide. The reduction involves the removal of areas further away from the saltpeter works, keeping the adjacent ones that have attributes associated with the desert landscape, the saltpeter industry and protect the visual cones from and to the works, achieving an effective buffering of the Site. It important to highlight that the polygon of the World Heritage Site already works as a first buffer zone for the Humberstone and Santa Laura Saltpeter Works, since it is between 0.15 and 0.4 km away from them.

To the north, the original Buffer Zone relates to an area of approximately 11 km long and 9.3 km wide, and the proposed zone reports an area of 2.9 km long and 6.1 km wide, both from the boundary of the World Site Heritage. The proposed area contains mainly former fields of saltpeter exploitation (*calicheras*), with the various remnants of the saltpeter extraction process; communication routes (railway track imprints, cart and truck roads); remainders of a saltpeter camp (Don Guillermo) and vestiges of three saltpeter works (Peña Chica, Peña Viejo and Keryma) and one stop (first processing systems of saltpeter, La Palma Stop). This allows the maintenance of a clear field of view towards the north of the site. The excluded area from the new Buffer Zone corresponds mostly to pampas sectors with no saltpeter deposits and hill areas. It also presents some saltpeter exploitation fields and vestiges of two saltpeter works.

The west of the original Buffering Zone has a width of approximately 2.6 km, and the proposed Zone has a width of approximately 1.9 km, both measured from the boundary of the World Heritage Site. The proposed zone comprises pampas sectors without saltpeter deposits, saltpeter exploitation fields and communication routes (railway track imprints, cart and truck roads). The excluded area corresponds mostly to pampas sectors with no saltpeter deposits, and to iodine exploitation deposits and current processing sectors thereof.

The south part of the original Buffer Zone has a height that varies between 0.7 to 3.9 km and a width of 7.3 km, approximately. The proposed Buffer Zone corresponds to a strip of approximately 0.1 km, all along the southern contour of the Property. The new zone contains the Humberstone and Santa Laura By-Pass highway and the public strip on both sides, which corresponds to a physical limit of the Site. The excluded area concerns mainly to iodine exploitation deposits and current processing sectors thereof.

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The east of the original Buffer Zone has a width of 1.6 km. The proposed Zone is equivalent to the Site boundary. In this area, the Site contains the Pan-American Highway (Route 1), the main highway in the country, which works as a physical boundary to the west. This road is located 0.4 km from the residential area of Humberstone and 0.1 km from its tailing cakes, and the border of the Site is located 0.2 km to the west of this road. The excluded area relates to parts of the desert pampas.

The modification of the limits of the Buffer Zone is expressed in the following chart:

Zones	Areas
Current Buffer Zone (2005), contains area of	12,055 ha.
World Heritage Site.	
Proposed Buffer Zone (2019), contains World	2,399.87 ha.
Heritage Site area.	
Buffer Zone Reduction	9,655.13 ha.

3) Justification for the modification:

The minor boundary modification is requested because:

- The new Buffer Zone fulfills the function of protecting the Universal Value of the Site, as it contains attributes related to environmental, historical and landscape values linked to the productive process of the saltpeter industry; protecting visual cones from and to the saltpeter works; being protected and regulated under the category of Typical Zone (Law of National Monuments); to be a possible area to manage.
- It was not possible to protect and regulate the original Buffer Zone.
- It was not possible to manage the entire original Buffer Zone, since some sectors have been carrying out incompatible activities with heritage protection for several decades. For example, mining production processes (iodine), transit activities and military training.

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The 2005 Buffer Zone, of 12,055 ha., was thought to be protected and regulated through its inclusion in the Municipal Zoning Plan of Pozo Almonte (Housing and Urban Development Law). Finally, the non-feasibility of this legal protection was determined, given that in Chile, Communal Regulatory Plans do not include rural areas, which is the situation in which the site and its surroundings are, and the territorial planning instruments that consider rural areas are larger scale and only have an indicative nature.

Since 2007, the Unesco World Heritage Committee (31 COM) has consulted about the specific regulations of the Buffer Zone, to achieve effective protection for the Site. The State of Desired Conservation for the Site to be removed from the List of World Heritage in Danger (37 COM 7A.37 2013), incorporates the existence of a legally protected and regulated Buffer Zone.

For this reason, a different protection figure was sought. It was found in the National Monuments Law (1970), with its recent regulation of Typical Zones (2017), which establishes norms for the regulation of these zones (Annex 1).

The need for effective management of the buffer zone, as well as the impossibility of protecting the total original area as a Typical Zone, because it included different activities -as concession areas for mining exploitation to the private sector and transit areas of military equipment- that were incompatible with heritage protection, led to limit the originally proposed area, maintaining an extensive part comprising public lands granted in major part to the administrator of the Site (1,907.12 ha), public lands destined to the Chilean Army that had heritage traces, and public strips to the west and south of the site, which include main territorial connectivity routes, under the responsibility of the Ministry of Public Works.

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In all, the proposed Buffer Zone has a surface area of 2,399.87 hectares, including the World Heritage Site, and contains attributes related to environmental, historical and landscape values. Among them are the vestiges of three saltpeter works - Peña Chica, Peña Vieja and Keryma - with their respective tailing cakes, La Palma Stop (settlements with the first saltpeter processing systems) and Don Guillermo camp (housing settlement associated with saltpeter exploitation), related to the Peña Chica work. These vestiges help to better understand the complex urban and industrial saltpeter system, and its insertion in the territory, being protected as a National Monument for the fact of being within the Typical Zone area.

The new Buffer Zone has legal protection, and is the result of the joint work of the Council of National Monuments and the National Center of World Heritage Sites, both belonging to the National Heritage Service of the Ministry of Cultures, Arts and Heritage; the Museo del Salitre Corporation, the Site's Administrator; the Ministry of National Assets; the Ministry of Public Works; the Municipality of Pozo Almonte and the Chilean Army. The new Buffer Zone conforms the Typical Zone "surroundings of the Santiago Humberstone and Santa Laura saltpeter works", which was approved by the Council of National Monuments in January, 2018, through the Official Decree of protection Nº 25 of August 28, 2018 (Annex 2 and 3).

During 2018 the rules of intervention of the Typical Zone (Buffer Zone) were prepared. They were adapted to the attributes that will maintain the Outstanding Universal Value of the Site, and were approved in the Council of National Monuments' Session of January 31, 2019 (Annex 4).

Annexes:

- Annex 1 Law 17,288 of National Monuments and Regulation of Typical Areas
- Annex 2 Decree MINCAP N° 25 that declares the "surroundings of the Santiago Humberstone and Santa Laura saltpeter works" as a National Monument in the category of a Typical Zone.
- Annex 3 Typical Zone Official map "surroundings of the Santiago Humberstone and Santa Laura saltpeter works".
- Annex 4 Rules of intervention for the Buffer Zone of the Humberstone and Santa Laura Saltpeter Works and presentation to the Council of National Monuments in its Session of 1/31/2019.

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4) Contribution to the maintenance of the Outstanding Universal Value:

The proposed Buffer Zone, which combines natural and cultural elements, allows:

- To conserve perspectives and free visualization of the Saltpeter Works in their natural landscape, maintaining its desert context and allowing the protection of the environmental nature of the saltpeter exploitation period (late 19th and first half of the 20th century).
- To protect saltpeter deposits, remainders of its exploitation form, connection networks, other works and camps. With this, it is possible to appreciate the saltpeter extraction productive process in a better way, illustrating the labor workers dedicated to mineral extraction, which was performed with explosives and subsequent block reduction through manual force.
- To expose density and interconnection of the offices, camps and saltpeter deposits, to show the intensity of occupation and transformation of the saltpeter pampa. All of this forms a diverse system of settlements and buildings in terms of typologies, materials and construction systems, distinctive of the era of saltpeter exploitation in the Tamarugal Pampa, expressing the technological development achieved in the process of industrialization of saltpeter and in the construction of social, administrative and housing infrastructure. Therefore, it is a testimony to the economic and social development boom, influenced by the saltpeter industry in Chile, specifically the Nebraska and La Peña cantons, demonstrating its commercial growth, exchange of technologies, knowledge, products, capitals and people, forming a complex scenario of cultural exchange.
- Knowing the existing connection routes, which form true networks, for the transfer of the mineral to the saltpeter works, carried out by cart, train or truck, depending on the period.
- Exemplify and protect an identity space of Pampa culture, shaped by social construction in a hostile environment, capable of transmitting the saltpeter workers' labor and organization, through which they managed to inhabit the desert and, accordingly, extract their minerals.
- To contribute to the protection of the Site, as it is legally protected and has a regulation as of 2019; and, it is already being managed.

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All this reinforces and enhances the Outstanding Universal Value of the Property, both in its role as the most representative urban-industrial complex of an activity that transformed the desert pampa into a very complex cultural universe, and as the last of the material exponents of an industry that printed a unique stamp and profoundly transformed the history of our country and the world.



Sites and elements of the saltpeter industry are present in the proposed Buffer Zone (red line). For more details, see Annex 5

Annex:

Annex 5 Map of the Typical Zone with saltpeter heritage details.

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5) Implications for legal protection:

The proposed Buffer Zone is protected as a National Monument in its category of Typical Zone since 2018 by Decree n^o 35 of the Ministry of Culture, Arts and Heritage (Annexes 2 and 3). During 2018, the regulatory measures for this area were elaborated, and were approved in Session of the Council of National Monuments (Annex 4), as established in Title III, Article 16 of the Regulation on Typical or Picturesque Areas, which is in force since 2017 (Annex 1).

The Rules of Intervention comprise 20 separate components in three types: places, specific elements and linear features. According to the significance, the state of conservation and the distribution of the components in the territory, six areas were typified: the Core Area, the Conservation Area, the Interpretative Pampa Area, the Living Memory Area, the Development Area and the Road Use Area, to then take guidelines for each intervention that is intended to be carried out in each of these areas.

These guidelines will direct the potential interventions to be carried out in the Buffer Zone, and contribute to the comprehensive and effective protection of the Site. The Intervention Rules will be coordinated with the Management Plan, which will be updated in 2019.

Annexes:

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6) Implications for management:

Most of the area proposed as a Buffer Zone is under the administration of the Museo del Salitre Corporation, through successive concessions of the Ministry of National Assets for the years 2001 and 2010 (Annex 6), which together correspond to 1,907.12 hectares. This Corporation was founded in 1999 by *pampinos*, and purchased the Site in 2002 for its protection and recovery, and manages it since then. It has permanent staff on the Site, which corresponds to an area that is not inhabited, as well as the Buffer Zone. Among other actions, the Corporation has managed to provide the property with security to avoid its affectation and obtain resources to intervene buildings that were structurally damaged or for large-scale interventions, such as water networks to stop fires, as established in its Management Plan. For this area, the projections are to include them in the interpretation circuit of the property, to illustrate the saltpeter extraction process.



Map of land granted to the Salitre Museum Corporation (green line), World Heritage Site (blue trimmed), Proposed buffer zone (red line) (Annex 7)

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The northern area and part of the western area of the buffer zone is granted to the Army of Chile, who agreed to the protection of this area. The Army carries out periodic monitoring in the area to avoid the alteration of the Works located in this sector and has installed signage for patrimonial protection, restricting any type of military activity in it. In addition, they are in permanent contact with the Museum Corporation of Salitre, and collaborate in different activities (Annex 8).

The road strip that outcomes in the Pan-American Highway (Route 1) and in the Highway A-16, is supervised by the Ministry of Public Works, who has also agreed on the heritage protection of this area, and is aware that it is only possible to perform road maintenance in the area, and install road and non-commercial signage.

The southwest area of the Buffer Zone, between the World Heritage Site and Route A-16, is administered by the Ministry of National Assets, which is aware of the area's heritage protection.

Any intervention carried out in the Buffer Zone, that has national protection as a Typical Zone, must be approved by the Council of National Monuments, which gives the State of Chile the possibility of control and supervision of this area so it effectively complies its role as a buffer for the World Heritage Site. In addition, when there is a breach of the permits granted or an unauthorized work, the Site Administrator informs the CMN, so that jointly the effective protection of the World Heritage Site is achieved.

Annexes

- Annex 6 Land grant documents from the Ministry of National Assets to the Museo del Salitre Corporation.
- Annex 7 Map that shows the proposed Buffer Zone and the concession area to the Museo del Salitre Corporation.
- Annex 8 Presentation on the Chilean Army's monitoring and safeguarding in the northern area of the Buffer Zone.

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7) Maps:

In Annex 9 the following maps are attached in pdf files:

7.1) World Heritage Site Map 2005:



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7.2) Buffer Zone Map 2005

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7.3) World Heritage Site Map, minor modification to the boundaries 2011:



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7.4 Buffer Zone Map 2019, related to Typical Zone "surroundings of the Santiago Humberstone and Santa Laura Saltpeter Works". The red line is the proposed Buffer Zone and the blue polygon is the World Heritage Site.



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7.5 Map of the overlapping Buffer Zone 2005 and Buffer Zone 2019. The blue line is the Original Buffer Area, the red line is the proposed Buffer Zone and the blue polygon is the World Heritage Site.



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8) Additional information: Photos of the Buffer Zone, taken from identification cards of components of the intervention guidelines (Annex 4)



Peña Chica Work



Peña Chica Work, aerial view

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Don Guillermo Camp. The two chimneys that can be seen on the horizon, on the upper left sector, are the Humbertsone and Santa Laura Works.



Aerial view of Don Guillermo Camp

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Peña Sol Sector



La Palma Stop, in the background is the Humberstone Works tailing cakes and chimney

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Saltpeter exploitation sector (*calicheras*), at the bottom right Santa Laura Work, and at the left bottom, Santiago Humberstone Work



Desert

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Cart traces



Traces drawn by the railway

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Torta de Humberstone



(*) Esta información no acredita propiedad.



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1	418.433	7.
2	418.210	7.
3	418.472	7.
4	417.870	7.
5	417.677	7.
6	417.737	7.
7	417.759	7.
8	417.673	7.
9	417.531	7.
10	417.430	7.
11	415.924	7.
12	414.602	7.
13	414.003	7.
14	413.635	7.
15	413.206	7.
16	412.119	7.
17	412.121	7.
18	412.123	7.
19	416.630	7.
20	417.859	7.





• Base Corporación Museo del Salitre , septiembre 2010.

Proceso de georreferenciación de acuerdo a la información desarrollada por el Área de Territorio - CMN. Estándares: Datum WGS 84, Huso 19 Sur.
Las coordenadas identificadas en este Plano Oficial, son redondeadas de acuerdo a la aproximación de su decimal.
Las cotas prevalecen por sobre el dibujo, son aproximadas y están expresadas en metros. En caso de fondos de predio, estos prevalecen por sobre la cota.
Esquicio de Chile: "Autoriza su circulación, por Resolución Nº475 del 22 de octubre de 2014 de la Dirección Nacional de Fronteras y Límites del Estado".

(*) Esta información no acredita propiedad.



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HUMBERSTONE AND SANTA LAURA SALTPETER WORKS (1178)			
REGION	TARAPACÁ		
PROVINCE	TAMARUGAL		
COMMUNE	POZO ALMONTE		
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