# CEYHAN PROPANE DEHYDROGENATION POLYPROPYLENE PRODUCTION PROJECT

# CULTURAL HERITAGE IMPACT ASSESSMENT REPORT

(ANNEX-I)

FEBRUARY 2023 ANKARA

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# **GLOSSARY**

Alexander the Great	The king of Macedonia, who lived between 356 BC and 323 BC. He established a great empire, stretching from Macedonia to India, and was instrumental in the spread of Ancient Greek civilization to the East.	
Ayas (Aigeia)	An important port city in the ancient period in the Cilicia Pedias (Ovalık Kilikya) region, east of Ceyhan (Pyramos) river, west of Iskenderun Bay. The city was named Aigeai in the Hellenistic Period, Aegeae in the Roman Period, Ajazzo or Lajazzo in the Middle Ages and Ayas in the later periods.	
Aqueduct	Vaulted or domed buildings that were built to carry water from the water source to the settlement in the ancient periods.	
Battle of Issus	The war between Alexander the Great, the King of Macedonia and Darius III, the King of Persia, in 333 BC in the Issus Plain, which is located near Erzin district today.	
Byzantine Period	The age of Byzantine Empire. With the division of the Roman (Eastern Roman) empire into two, the Byzantine Empire was established in AD 395 and was destroyed in 1453 by the conquest of Istanbul.	
Caravansaray	Large inns established for the accommodation of caravans on the trade routes.	
Chalcolithic Period	The period between the years 5500-3200 BC in Anatolia that copper as well as stone tools were used.	
Cilicia Region	The name given to the area covering present-day Mersin, Adana, Hatay and Osmaniye in Antiquity.	
Darius III	A famous Persian emperor who lived between 380 BC and 330 BC.	
Epiphaneia	The city located 7 km west of Erzin district and founded by the Macedonian command of Alexander the Great, Seleukos Nicator.	
Genoese	The people who established trade colonies in the Mediterranean, Black Sea, Atla Ocean between the 11th and 15th centuries, who are known for their maritime activit	
Hellenistic Period	Period The period between the death of Alexander the Great and the Roman capture of I (332-30 BC). It is divided into 3 sections as Early (323 BC-230 BC), High (230-150 Late (150 BC-30 BC) Hellenistic Period.	
Hittite State	The state that ruled in Anatolia and Northern Syria approximately between 1900 and 1200 BC.	
Huyuk  A flat hill, which is formed by the accumulation of ruins in the settlement areas been destroyed for various reasons throughout the history and where the remains are buried.		
Necropolis	Literally, the city of the dead. Used for ancient cemeteries.	
Neolithic Period	New stone age (9600-5500 BC). In the history of humanity, the period that started we the transition of people to settled life for the first time together with food production called Neolithic Age. The Neolithic Period is divided into two sub-phases: Pre-Potte Neolithic (9500- 7000 BC) and Pottery Neolithic (7000- 5500 BC).	
Persian Period	The period under the rule of Persians in Iran and Anatolia between 533 BC and 334 BC.	
Rome	The civilization that was born from the city of Rome, which was established in the Italian Peninsula in the 9th century BC and became an empire by surrounding the entire Mediterranean. In 395 AD, it was divided into two by Eastern Rome (Byzantine) and Western Rome by Theodosius. The Byzantine (Eastern Roman) Period continued until the conquest of Istanbul in 1453.	

### **ABBREVIATIONS**

AD After Christ, The Common Era

**BC** Before Christ

**EBRD** European Bank for Reconstruction and Development

**Etc.** Et cetera

Geographic Information System

GPS Global Positioning System

IFC International Finance Corporation

km Kilometer Offic. Official

**PDH** Propane Dehydrogenation

PP Polypropylene
T.R. Turkish Republic

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#### INTRODUCTION 1

This report is to identify the potential tangible and intangible cultural heritage within the Project Area of the "Ceyhan Propane Dehydrogenization (PDH) and Polypropylene (PP)" Project (the Project) planned within Adana Province, Ceyhan District and to evaluate the possible impacts of the Project activities and Project's associated facility on these assets.

This study is implemented in addition to the "Archaeological Heritage Baseline Study" as the result of the extension of the Project Area and expansion of the scope.

The report has been prepared in accordance with the European Bank for Reconstruction and Development (EBRD) Performance Requirement 8 (PR 8) and International Finance Corporation (IFC) Performance Standard 8 (PS 8).

# **Scope and Objectives**

The geographical scope of the study is the area where the PDH-PP units and the main campuses and associated facility (terminal facility) are located in the Project (Figure 1-1).

The evaluation of the Project impact on tangible and intangible cultural heritage assets in the Project site, associated facility and its vicinity constitutes the thematic scope of this study.

The main objectives of this evaluation report are as follows:

- Determination of the current status and geographical distribution of the tangible heritage assets and intangible cultural heritage that may be affected by the construction and operation activities of the Project and associated facility;
- Identifying the negative effects that may pose due to the Project on tangible and intangible cultural heritage;
- Determining the necessary measures to minimize potential negative effects on tangible and intangible cultural heritage through the activities of the Project and associated facility.

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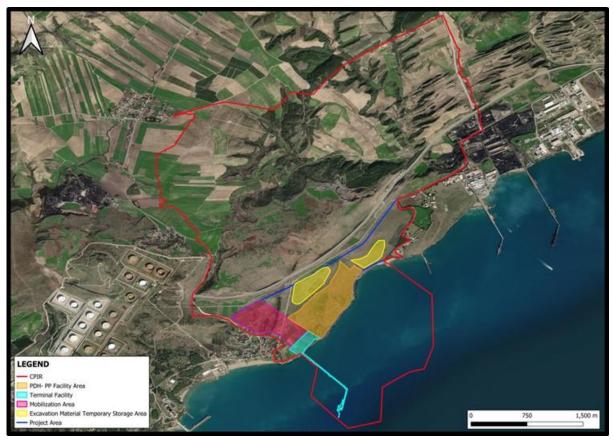


Figure 1-1. Ceyhan Petrochemical Industrial Zone and Ceyhan Propane Dehydrogenation - Polypropylene Production Project Borders

# 2 LEGAL FRAMEWORK AND RELAVANT STANDARDS

#### 2.1 Tangible Cultural Heritage

In Türkiye, movable and immovable cultural and natural assets are protected and should be conserved as per the "Law on Preservation of Cultural and Natural Assets", 2863 (amended by law numbered 3386), published in the Official Gazette numbered 18113 and dated 23 July 1983. According to the Law, essential assets which are identified as cultural and natural heritage under legal protection are defined as follows:

- Natural and immovable cultural assets belonging to 19th Century and before;
- Any immovable cultural asset constructed after the end of the 19th Century but categorized as "a significant asset which requires preservation" by the Ministry of Culture and Tourism;
- Immovable cultural assets located within the Protection Sites (in the Law, Protection Sites are defined as ancient sites and ruins which reflect the main social, economic or architectural characteristics of their era. Protection Sites may also be locations where fundamental historical events took place or areas containing considerable natural or cultural assets with natural or cultural features requiring preservation); structures, buildings or places that have witnessed significant historical events during the Turkish Independence War or the foundation of the Turkish Republic, regardless of time and registration; and all dwellings and buildings that have been used by Mustafa Kemal ATATURK without considering their time of construction or status of registration.

The relevant requirements of the Law on Conservation of Cultural and Natural Property (No. 2863, 1983) applicable to the Project construction works are listed below (Table 2-1):

Table 2-1. Applicable Requirements of the Law No. 2863

No	Name of the Area			
Article 4 – Obligation to Notify	Persons that discover movable and immovable cultural and natural property, owners, proprietors or occupants that know or have recently found out about the existence of cultural and natural property on the land they own or use shall be obliged to notify the nearest museum directorship or the village headman or the local administrators of other places within at the <u>latest three days.</u>			
	If such property is in military garrisons and restricted areas, the relevant command levels shall be notified in line with the relevant procedure.			
	The village headman, the local administrator receiving such notification or the relevant authorities that are directly notified of such property shall take the necessary measures to protect and secure such property. The village headman shall notify the nearest local administrator as of the situation and the measures taken on the same day. The local administrator and other authorities shall notify in writing the MoCT and the nearest museum directorship within ten days.			
	Upon receiving this notification, the Ministry and Museum Director shall instigate due proceedings as soon as possible in line with the provisions of this law.			
Article 5 –	Immovable property belonging to the state, public institutions and organisations and movable and immovable cultural and natural property to be protected that is known to exist or will be			

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No	Name of the Area		
Quality of state property	discovered on an immovable property owned by real and legal persons subject to civil law shall have the quality of state property.		
	Registered and annexed foundation property subject to a separate status due to its special qualities shall not be covered by this provision.		
Article 25 – Transfer to Museums	MoCT shall classify and register based on scientific principles movable cultural and natural property declared to MoCT according to article four and movable cultural and natural property to be protected as specified in article 23. Antiquities that need to be conserved in state museums shall be duly transferred to museums.		
	The criteria, procedures and principles for classification, registration and transfer to museums of movable cultural and natural property to be protected shall be specified in a regulation.  The historical features of all kind of weapons and materials concerning Turkish military history		

In addition to the Law on Preservation of Cultural and Natural Assets, some regulations govern the procedures about the protection and preservation of cultural and natural assets. The most predominant one being the Principle Decision (No. 658, issued 5 November 1999) which states that all archaeological sites need to be classified and protected according to their significant features. Three main categories are determined relevant to archaeological sites as:

- 1st Degree Archaeological Sites: Areas requiring highest level of protection. They
  should be preserved except for scientific excavations. The area should be free of any
  type of buildings and construction. All kinds of construction, excavation, and
  modification activities are prohibited. However, for exceptional cases such as the
  necessity for essential infrastructure construction, Regional Councils may permit such
  activities based on the approval of the relevant museum and the head of the scientific
  excavation team;
- 2nd Degree Archaeological Sites: Areas requiring medium level of protection. They
  should be preserved based on the conditions of protection and utilisation set by the
  Regional Councils. Additional construction is prohibited. As the 1st Degree Sites, for
  exceptional cases such as necessity for infrastructure construction among others,
  Regional Councils may permit such activities based on the approval of the relevant
  museum and the head of the scientific excavation team:
- 3rd Degree Archaeological Sites: Lowest level of protection area. Construction is
  permitted based on the decisions of Regional Councils. Before applying for a
  construction permit, test pit excavations should be conducted, and the outcomes of
  these excavations should be reviewed by the relevant museum and, if present, the
  head of the scientific excavation team. Reviews should be submitted to Regional
  Councils. The Councils may ask for extension of the coverage of test pits before taking
  any decision.

### 2.2 Intangible Cultural Heritage

UNESCO put into effect the "Convention for the Safeguarding of the Intangible Cultural Heritage" in the 32nd General Conference held in Paris between September 29th and October

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17th, 2003. The convention was officially accepted by the Republic of Türkiye with the "Law No. 5448 Regarding the Approval of the Convention of Safeguarding of Intangible Cultural Heritage on January 19<sup>th</sup>, 2006". The intangible cultural heritage legally safeguarded by the relevant law was defined as follows:

 Cultural products and production processes such as oral narratives and oral traditions created by the folk in oral culture environments and included in folklore studies, performance arts, social practices, rituals and festivals, folklore, practices related to the universe and nature, handcraft traditions.

In addition to the laws and regulations described above, the guidelines given below, and the guiding principles of international organizations have been taken into consideration during the work carried out:

• International Finance Corporation - IFC Performance Standard 8 (PS 8); Cultural Heritage, 2012.

In the field of Cultural Heritage, IFC Performance Standard 8 mentions the necessity of preserving cultural heritage for today and for the future. This Performance Standard aims to protect cultural heritage from the negative impacts that may arise from activities at every stage of the Project and to ensure equal use of existing cultural heritage.

According to Performance Standard 8, "cultural heritage refers to (i) tangible forms of cultural heritage, such as tangible moveable or immovable objects, property, sites, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values; (ii) unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls; and (iii) certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles".

• The EBRD, Environmental and Social Policy, Performance Requirement 8 (PR 8), Cultural Heritage.

The EBRD specifies the implementation of Performance Requirements 8 (PR8) Cultural Heritage guidelines in order to understand the conservation and importance of cultural heritage. The EBRD emphasizes the importance of protecting cultural heritage for present and future generations. Both tangible and intangible cultural heritage are important assets and are an integral part of the continuity of cultural identity and practices. The PR8 requirement states that all parties, at the Project implementation level, to respect the laws, regulations, and obligations under relevant international treaties and agreements ratified by host countries. These laws and regulations may cover cultural heritage or antiquities, planning or building permits, conservation areas, protected areas, built heritage, or the protection of cultures of indigenous peoples (refer to the guidance on PR7).

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The main objectives of Performance Requirement 8 are as follows;

- identify and assess potentially significant, existing and future, adverse environmental and social impacts associated with the Client's current operations and the Project;
- assess compliance with applicable laws and EBRD's Environmental and Social Policy (2019);
- determine the measures needed to prevent or minimise and mitigate the adverse impacts;
- identify potential environmental and social opportunities, including those that would improve the environmental and social sustainability of the Project and the current operations.

According to the EBRD PR 8, Tangible cultural heritage refers to movable or immovable objects, sites, groups of structures as well as cultural or sacred spaces associated therewith, and natural features and landscapes that have archaeological, ethnological, paleontological, historical, architectural, religious, aesthetic or other cultural significance. Intangible cultural heritage refers to practices, representations, expressions, knowledge and skills that communities, groups and, in some cases, individuals recognise as part of their cultural heritage and which are transmitted from generation to generation.

On the other hand, Türkiye has ratified the following key international conventions regarding the cultural heritage, which are applicable to the Project:

- United Nations Educational, Scientific, and Cultural Organisation (UNESCO), Convention on the Protection and Promotion of the Diversity of Cultural Expressions. Paris, 20 October 2005;
- United Nations Educational, Scientific, and Cultural Organisation (UNESCO), Convention for the Safeguarding of the Intangible Cultural Heritage. Paris, 17 October 2003;
- United Nations Educational, Scientific, and Cultural Organisation (UNESCO), Convention on the Protection of World Cultural and Natural Heritage. Paris, 16 November 1972;
- United Nations Educational, Scientific, and Cultural Organisation (UNESCO), Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property. Paris, 14 November 1970;
- Convention for the Safeguarding of the Intangible. Cultural Heritage. Paris, 17 October 2003.

In addition, the "Guidance on Heritage Impact Assessments for Cultural World Heritage Properties, ICOMOS 2011" has been taken into consideration.

# 3 METHODOLOGY

Four different methods have been used in evaluating the present status of the tangible and intangible cultural heritage assets for the Project. These methods are as follows:

- Desktop Study;
- Field Research;
- Impact Assessment;
- Reporting.

#### 3.1 Desktop Study

Publications on tangible and intangible cultural heritage related to the field of study and its immediate vicinity have been compiled in order to determine the cultural heritage potential of the Project and its associated facility area.

It has been researched whether there is an existence of archaeological or cultural heritage which has already been recorded in the area of study or in the nearby area by interviewing Adana Regional Council for the Conservation of Cultural Property.

The resources used during the desk study for the research of tangible and intangible cultural heritage are as follows:

- · Academic Publications;
- Historical Maps;
- Previous Cultural Heritage Studies and Surface Survey Results Reports;
- Inventory Records of the Ministry of Culture and Tourism 1.

#### 3.2 Field Research

The field survey on tangible and intagible cultural heritage have been conducted separately. The surveys were carried on the Project and its vicinity between 8-10 November 2021 by REGIO Cultural Heritage Field Team<sup>2</sup>.

During the field research, registered and unregistered Tangible Cultural Heritage assets that can be included in the "Ceyhan Propane Dehydrogenation - Polypropylene Production Project" and its vicinity were examined. In addition, the registration records of the Adana Regional

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<sup>&</sup>lt;sup>1</sup> Decision No 11159 dated 26.04.2019 of the Adana Regional Council for the Conservation of Cultural Property.

<sup>&</sup>lt;sup>2</sup> Senior Archaeologist H. Uğur DAĞ, Senior Archaeologist Serkan AKDEMİR.

Council for the Conservation of Cultural Property to which the area is affiliated and the surface studies previously conducted for archaeological purposes in the region were examined to determine the possible effects to the cultural assets in the area and its immediate vicinity.

In order to prevent possible confusion in data collection and documentation during fieldwork due to geographical factors and existing vegetation, prior to fieldwork for the archaeological assessment of the site; the Project Area was divided into sections by using GIS and the working area was divided into parcels. Thus, it was possible document in detail and assign codes to archaeological remains to be identified in the field. In this system, rectangles with a width of approximately 200/ 250 meters were created in the direction of "East-West" by taking boundaries of the area into account. The coding of the parcels follows consecutive numbers (i.e., 1, 2, 3, 4, 5.) from north to south (Figure 3-1).

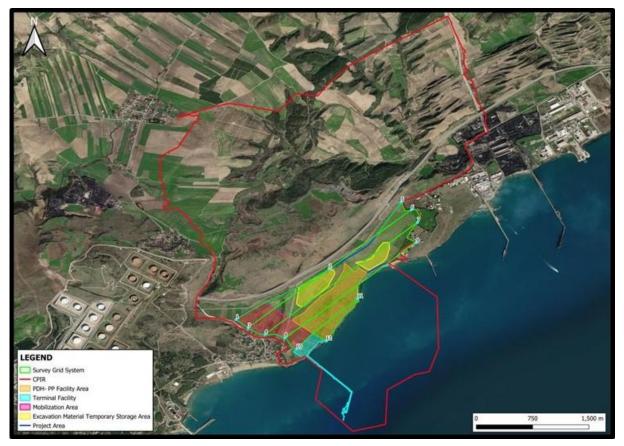


Figure 3-1. The System Created for the Ceyhan Propane Dehydrogenation - Polypropylene Production Project Archaeological Survey

The entire area was screened by a walkover survey conducted by the archaeological team. Moreover, in order to determine the archaeological and cultural heritage assets that may be under the vegetation in the area, flights have been coordinated from a height of 100 meters on the area with an unmanned aerial vehicle (Drone). The obtained data were processed in a mapping and analysis platform for determining the possible impacts of the Project within the site boundaries.

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A visual impact assessment study has been carried out to understand the interaction of the Project boundaries and cultural assets (Figure 5-1; Figure 5-2; Figure 5-3).

Field works for intangible cultural heritage were conducted using qualitative interview method at 7 settlements in the vicinity of the Project. No restriction was implemented during the interviews and participants were able to provide their own answers. Interviews aimed to make participants convey their own cultural structures and behaviors and experiences that make up those structures. Other than the mentioned profile, people who have commanding knowledge about the region's history, customs and traditions as well as its geography were also interviewed. In addition, observations made during the study were also used as a part of the field works on intangible cultural heritage.

#### 3.3 Impact Assessment

#### 3.3.1 Tangible Cultural Heritage

It is possible that some activities conducted within the Project and its vicinity of the Ceyhan Propane Dehydrogenation - Polypropylene Production Project may cause irreversible negative effects on archaeological and tangible cultural heritage assets. Some mitigation measures are proposed to minimise these effects. The impact of construction activities on the identified areas are evaluated based on "Guidance on Heritage Impact Assessments for Cultural World Heritage Properties" document prepared by ICOMOS and adopted by the Ministry of Culture and Tourism for its use to properly assess the impact of construction activities on cultural sites. In line with the document, the archaeological and tangible cultural assets identified in the area are classified based on their level of importance (Table 3-1).

Table 3-1. Example Guide for Assessing Value of Heritage Assets

Grading	Archaeology	Built heritage or Historic Urban Landscape	Historic Landscape	
	Sites of acknowledged international importance inscribed as WH property.	Sites or structures of acknowledged international importance inscribed as of universal importance as WH property.	Landscapes of acknowledged international importance inscribed as WH property.	
Very High	Individual attributes that convey OUV of the WH property.	Individual attributes that convey OUV of the WH property	Individual attributes that convey OUV of the WH property.	
very migh	Assets that can contribute significantly to acknowledged international research objectives.  Other buildings or urban landscapes of recognized international importance.  Extremel historic la exception	Oth on huildings on whom	Historic landscapes of international value, whether designated or not	
		Extremely wellpreserved historic landscapes with exceptional coherence, timedepth, or other critical factors.		
High	Nationally designated Archaeological Monuments  Nationally designated structures with standing remains.		Nationally-designated historic landscape of outstanding interest.	

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Grading	Grading Archaeology Built heritage or Historic Urban Landscape		Historic Landscape
	protected by the State Party's laws		
	Undesignated sites of the quality and importance to be designated.	Other buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade.	Undesignated landscapes of outstanding interest.
	Assets that can contribute significantly to acknowledged national research objectives.	Conservation Areas containing very Important buildings.	Undesignated landscapes of high quality and importance, and of demonstrable national value
		Undesignated structures of clear national importance.	Well preserved historic landscapes, exhibiting considerable coherence, timedepth or other critical factors.
	Designated or undesignated assets that can contribute significantly to regional research objectives.	Designated buildings. Historic (unlisted) buildings that can be shown to have exceptional qualities or historical associations.	Designated special historic landscapes.
Medium		Conservation Areas containing buildings that contribute significantly to its historic	Undesignated historic landscapes that would justify special historic landscape designation.
		character.	Landscapes of regional value.
		Historic townscapes or built-up areas with important historic integrity in their buildings or built settings.	Averagely well preserved historic landscapes with reasonable coherence, timedepth or other critical factors.
	Designated or undesignated assets of local importance.	"Locally Listed" buildings.	Robust undesignated historic landscapes.
Low	Assets compromised by poor preservation and/or poor survival of contextual associations.	Historic (unlisted) buildings of modest quality in their fabric or historical associations	Historic landscapes with importance to local interest groups
	Assets of limited value, but with potential to contribute to local research objectives.	Historic Townscape or built-up areas of limited historic integrity in their buildings or built settings.	Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	Assets with little or no surviving archaeological interest.	Buildings or urban landscapes of no architectural or historical merit; buildings of an intrusive character.	Landscapes little or no significant historical interest.
Unknown potential	The importance of the asset has not been ascertained.	Buildings with some hidden (i.e. inaccessible) potential for historic significance.	N/A

A 5-stage classification was made in order to evaluate not only the impacts of the archaeological and immovable cultural heritage assets within the Project Area from the Project activities but also the magnitude of the impacts (Table 3-2).

Table 3-2. Criteria for Value of Intangible Cultural Heritage Receptors and Criteria for Evaluating the Magnitude of Impact

Magnitude of Impact				
Impact Grading	Archaeological attributes	Built heritage or Historic Urban Landscape attributes	Historic landscape attributes	
	Changes to attributes that convey OUV of WH properties.	Change to key historic building elements that contribute to OUV, such	Change to most or all key historic landscape elements, parcels or components; extreme visual	
Major	Most or all key archaeological materials, including those that contribute to OUV such that the resource is totally altered.	that the resource is totally altered	effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character	
	Comprehensive changes to setting.	Comprehensive changes to the setting.	unit and loss of OUV.	
	Changes to many key archaeological materials, such that the resource is clearly modified.	Changes to many key historic building elements, such that the resource is significantly modified.	Change to many key historic landscape elements, parcels or components; visual change	
Moderate	Considerable changes to setting that affect the character of the asset.	Changes to the setting of an historic building, such that it is significantly modified.	to many key aspects of the historic landscape; noticeable differences in noise or sound quality; considerable changes to use or access; resulting in moderate changes to historic landscape character.	
	Changes to key archaeological materials, such that the resource is slightly altered.	Change to key historic building elements, such that the asset is slightly different.	Change to few key historic landscape elements, parcels or components; slight visual changes to few	
Minor	Slight changes to setting.	Change to setting of an historic building, such that it is noticeably changed.	key aspects of historic landscape; limited changes to noise levels or sound quality; slight changes to use or access; resulting in limited change to historic landscape character.	
Negligible	Very minor changes to key archaeological materials, or setting	Slight changes to historic building elements or setting that hardly affect it.	Very minor changes to key historic landscape elements, parcels or components; virtually unchanged visual effects; very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.	

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Grading Archaeological attributes Urban L		Built heritage or Historic Urban Landscape attributes	Historic landscape attributes
No change	No change.	No change to fabric or setting.	No change to elements, parcels or components; no visual or audible changes; no changes in amenity or community factors.

While determining the general impact of the Project activities on the archaeological and immovable cultural heritage assets within the Project its vicinity, a general impact assessment was made taking into account the "scale / severity of the impact" and "the importance of the archaeological or immovable cultural heritage asset" (see. Table 3-3).

Table 3-3. General Impact Assessment Matrix

Value of	SCALE & SEVERITY OF CHANGE/IMPACT					
Archaeological or Immovable Cultural Heritage	No Change	Negligible change	Minor change	Moderate change	Major change	
For Word Heritage List Properties <b>VERY HIGH</b>		SIGNIFICANCE OF EFFECT OR OVERALL IMPACT (EITHER ADVERSE OR BENEFICIAL)				
<ul><li>Attributes Which Convey</li><li>Outstanding Universal Value</li></ul>	Neutral	Slight	Moderate/ Large	Large/very Large	Very Large	
For Other Cultural Heritage Assets	SIGNIFICANCE OF IMPACT (EITHER ADVERSE OR BENEFICIAL)				CIAL)	
Very High	Neutral	Slight	Moderate/ Large	Large/very Large	Very Large	
High	Neutral	Slight	Moderate/ Slight	Moderate/ Large	Large/Very Large	
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/ Large	
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/ Moderate	
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight	

The assessment made based on the criteria stated above are given in Table 6-1 of Section 5.1: Overall Assessment of Tangible Cultural Heritage.

#### 3.3.2 Intangible Cultural Heritage

Assessment of the impact of the Project on intangible cultural heritage has been conducted in the Project Area and its vicinity in compliance with international standards and local legislation. Examples of intangible cultural assets identified with the study are not affected by the Project.

No edifice regarded to be sacred by the local communities such as historic fountains, monuments, shrines etc. have been identified.

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During the Project activities, consultation with the local communities must continue and any sensitivity which may the Project cause must be resolved. In addition, the Project staff must be informed about the intangible cultural heritage assets in the region and their importance for the local communities.

Since no relocation is foreseen as the result of the Project, any harm to cultural patterns because of the Project activities is not foreseen.

On the other hand, some positive impact on intangible cultural heritage can be observed considering the increase in mobility and trade in the region during the operation phase of the Project. Social investment Project can be prepared for promoting rural tourism not only for intangible cultural heritage assets but for physical cultural heritage as well (e.g., local weaving traditions in Adana provinces). Financial support to the Project through local communities may contribute to the protection of intangible cultural assets as well as providing source of income for the local people.

In line with the ICOMOS Guidelines, sensitivity of intangible cultural assets and the magnitude of impact of the Project on those has been identified with respect to the criteria stated in Table 3-4.

**Table 3-4.** Criteria for Value of Intangible Cultural Heritage Receptors and Criteria for Evaluating the

Sensitivity Level	Criteria	Magnitude Level	Criteria	
Very High	Areas associated with Intangible Cultural heritage activities as evidenced by the national register.  Associations with particular innovations, technical or scientific developments or movements of global significance.  Associations with particular individuals of global importance  Nationally designated areas or activities associated with globally important Intangible	Major	Major changes to area that affect the ICH activities or associations or visual links and cultural appreciation.	
High	Cultural Heritage activities. Associations with particular innovations, technical or scientific developments or movements of national significance Associations with particular individuals of national importance			
Areas associated with Intangible Cultural heritage activities as evidenced by local registers.  Medium Associations with particular innovations or developments of regional or local significance. Associations with particular individuals of regional importance		Moderate	Considerable changes to area that affect the ICH activities or associations or visual links and cultural appreciation.	

Annex-I: Cultural Heritage Impact Assessment Report

Sensitivity Level	Criteria	Magnitude Level	Criteria			
Low	Intangible Cultural heritage activities of local significance Associations with particular individuals of local importance Poor survival of physical areas in which activities occur or are associated		Changes to area that affect the ICH activities or associations or visual links and cultural appreciation.			
Negligible	Few associations or Intangible Cultural Heritage vestiges surviving		Very minor changes to area that affe the ICH activities or associations or visual links and cultural appreciation.			
Unknown	Little is known or recorded about Intangible Cultural Heritage of the area	No change	No change			

# 3.4 Reporting

During all studies, all data collected for tangible and intangible cultural assets are evaluated in different mapping and analysis platforms and the reporting was completed by considering geographical positioning of archaeological and cultural assets and by developing mitigatory actions for protection/salvation of these assets.

# 4 INTANGIBLE AND TANGIBLE BACKGROUND

## 4.1 Background for Tangible Cultural Heritage

Çukurova, formed by the widest and most fertile plains of Anatolia, forms the southern part of the Neogene Adana Basin. Surrounded by the Taurus Mountains in the north, Amanos Mountains in the east and the Mediterranean in the south, the western border of the region is determined by the Ecemiş fault line<sup>3</sup>. The plain formed by the common delta of the Tarsus (Cydnus), Seyhan (Sarus) and Ceyhan (Pyramus) rivers and named as the Aeolian<sup>4</sup> plain in ancient sources is located in the southwest of the region. The southern part of the basin, which is entirely called the Adana Plain, is called Çukurova, while the northern part is called Yukarı Ova (Anavarza). The Misis (Cebelinur) Mountains separate the two plains. This topography was called Ovalık Kilikya (Cilicia Pedias or Campestris<sup>5</sup>) in ancient times.

Ovalık Kilikya, which has the appearance of a closed basin at first due to the mountains surrounding it, breaks this closed basin appearance as it is located on important roads connecting Central Anatolia to Syria and Mesopotamia. One of the most important of these roads is the road that descends from Taurus Mountains to Tarsus via Gülek Passage (Pylai Kilikias<sup>6</sup>), reaches to Kinet Huyuk, which was localized as the ancient Issus<sup>7</sup> through Misis (Mopsuhestia), and connects to Syria and Mesopotamia through the Belen Pass (Syriai Pylai) in Amanos Mountains (Figure 4-1). This aforementioned road has a route crossing the protected archaeological sites such as Karanlık Kapı 1<sup>st</sup> and 3<sup>rd</sup> Degree Archaeological Site which is located close to Project Area and Muttalip Huyuk located in Toros Tarım premises (Figure 4-1; Table 4-1).

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<sup>&</sup>lt;sup>3</sup> Şenyurt vd. 2006:12; Gürbüz 1992:212.

<sup>&</sup>lt;sup>4</sup> Şenyurt vd. 2006:12; Magie 1950: 271.

<sup>&</sup>lt;sup>5</sup> Strabon XIV: 5.1.

<sup>&</sup>lt;sup>6</sup> Şenyurt vd. 2006:16; Hild-Hellenkemper 1990: 387.

<sup>&</sup>lt;sup>7</sup> Şenyurt vd. 2006:16; Gates 1999: 304.

<sup>&</sup>lt;sup>8</sup> Strabon XIV: V.1; Erzen 1940:14-16,27-29.

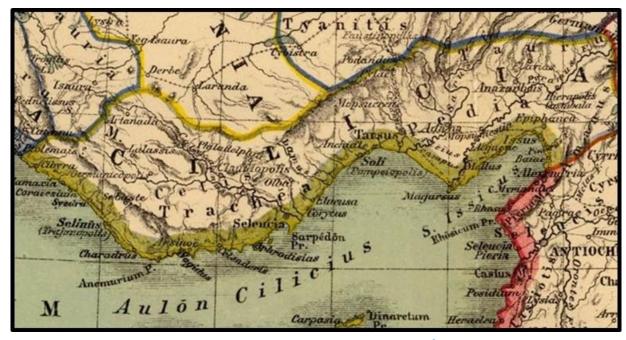


Figure 4-1. Ancient Period Clicia Region<sup>9</sup>

Starting from the ancient city of Soli / Pompeiopolis<sup>10</sup> to the foothills of the Amanos Mountains, Ovalık Kilikya has attracted human communities from prehistoric<sup>11</sup> times thanks to its fertile soil and water resources.

The Neolithic Period is the period seen in Anatolia between 9500 BC and 5500 BC and is called the "New Stone Age". Important residential areas of this period close to the Project Area are Tarmil (Tırmıl), Tatarlı, Şamsı, Tömük (Elvanlı), Kabarsa ve Çavuşlu Huyuks<sup>12</sup>.

The Chalcolithic Period (5500 BC- 3200 BC) was experienced after the Neolithic period in Ovalık Kilikya<sup>13</sup>. Anazarbos (Anazarva), Aigaea (Yumurtalık), Hierapolis-Kastabala (Osmaniye), Mopsuestia-Misis (Yakapınar), Domuz Tepe, Sirkeli Huyuk, Tülek Huyuk, Boyalı Huyuk, Tatarlı Huyuk ve Muttalip Huyuk in Toros Gübre can be listed among the important settlements of this period, close to the Project Area limits. (Figure 4-2, Table 4-1).

After the Chalcolithic Period, Bronze Age was experienced in Anatolia (3200 BC-1200 BC). It is known from the excavations and field surveys that large settlements were established in Ovalık Kilikya, as in other parts of Anatolia. In this period bronze which is obtained by mixing tin and copper, began to be used in metal tool making. Yarım Huyuk, Tülek Huyuk, Boyalı Huyuk, Maltepe Huyuk, Sirkeli Huyuk, Çatalhöyük, Sarı Huyuk, Kameroğlu Huyuk, Muttalip Huyuk and Kinet Huyuk can be listed among the Bronze Age settlements close to the Project site. (Figure 4-2, Table 4-1).

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<sup>&</sup>lt;sup>9</sup> Spruner, 1865.

<sup>Strabon XIV: V.1; Erzen 1940:14-16,27-29.
Şenyurt vd. 2006:12; Garstang 1953: 15.</sup> 

<sup>&</sup>lt;sup>12</sup> Kurt 2006:60; Ünal-Girginer 2007: 50. 109.

<sup>&</sup>lt;sup>13</sup> Harmankaya-Tanındı 1998. 3 (TAY).

In the middle of the 2nd Millennium BC, the Kizzuwatna Kingdom dominated the region, and until it was annexed to the Hittite Empire in the 1350s BC, it emerged as an independent kingdom between Hittite and Mitanni which wasa Hurri kingdom. Among the important settlements in the region belonging to this period are; Karatepe-Aslantas Huyuk, Pasgüden Huyuk, Hacılar Huyuk, Yarım Huyuk, Adatepe, Bakırlı Çiftlik Huyuk, Bozhöyük, Muttalip Huyuk, Sirkeli Huyuk and Ertekin Bey Huyuk. (Figure 4-2, Table 4-1).

The first millennium BC is known as the "Iron Age". In this period when iron became widespread in making tools, the effects of the Late Assyrian Empire (858 BC-612 BC) and the New Babylonian State (626 BC-539 BC) are observed while the existence of city states belonging to the Late Hittite period is also known. Karatepe, Sirkeli Huyuk, Tatarlı Huyuk, Tülek Huyuk, Boyalı Huyuk, Maltepe Huyuk, Muttalip Huyuk and Botaş Huyuk are among the most important settlements of this period (Figure 4-2, Table 4-1).

The region also hosted events that changed the course of history. Important settlements and necropolises<sup>14</sup> from the Hellenistic and Roman periods are also known in the region which witnessed the Battle of Issus<sup>15</sup> in 333 BC, between Alexander the Great, the king Macedonia and Persian King Darius III. Yüceören, Hierapolis-Kastabala, Anavarza (Anazarbos), Flaviopolis (Kadirli), Domuztepe, Neronias/Irenepolis (Düziçi), Sarımazı OSB, Babilik, Misis-Yakapınar (Mopsouhestia), Kurtkulağı Ölçü Tepesi, Maltepe Huyuk, Kabaktepe, Botaş Huyuk, Muttalip Huyuk, Tülek Höyük, Boyalı, Gökdere, Kurtpınarı, Yumurtalık (Aegeai), Karanlık Kapı, Erzin (Epiphaneai), Baias (Payas) are some of these settlements (Figure 4-1, Table 4-1).

Many settlements<sup>16</sup> in the region were rebuilt during the Roman period. Sarımazı OSB, Babilik, Kurtkulağı Ölçü Tepesi, Kabaktepe, Tülek Huyuk, Muttalip Huyuk, Boyalı Huyuk, Gökdere, Yüceören, Sokuluk, Kurtpınarı, Botaş Huyuk, Su Gözü, Gölovası, Turunçlu Building Ruins belong to some of these settlements (Figure 4-1; Table 4-1). Roads connecting these settlements to the inner regions were also built during the Roman period. One of these roads is Aleppean Road. The road is partly within the borders of Ceyhan Petrochemical Industrial Zone. It is known that, after crossing the southern shore of Pyramos (Ceyhan River) from the ancient bridge in Misis (Yakapınar), the road reaches Tardequieia, which was established as a road station 15 Roman miles away and localized in the village of Kurtkulağı, and from there to Muttalip Huyuk via Karanlıkapı.

In this period, besides the roads, it is known that important aqueducts were built to meet the water needs of the increasing population in the Roman period. Fresh water from the water source in the Amanos Mountains was brought from Epiphaneia to the Genoese port city on the seafront in Burnaz and, as it was brought to to Ayas (Yumurtalik) due to another claim. The known length of the waterway on a land of volcanic basalt stones reaches 30 km. One branch

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<sup>&</sup>lt;sup>14</sup> Ancient Cemetry

<sup>&</sup>lt;sup>15</sup>It took place on the plain 7 km west of present-day Erzin District of Hatay Province.

<sup>16</sup> Karanlık Kapı, Yılankale, Yıkık Kilise, Burhanlı, Su gözü, Adatepe Necropolis, Hamdilli-Altıkara-Elmagölü necropolis' etc.

of the mentioned Ancient waterway is considered to be the Kurtpınar Ancient Waterway within the Project Area.

After the Roman Empire was divided into two in 375, the Cilicia Region remained under the rule of Eastern Rome. Throughout the Middle Ages the region was ruled by Byzantines, Arabs, Thessalonians, Armenians, Mamluk State, Ramazanoğulları, respectively. The region came under Ottoman rule in 1517. There are many historical buildings and settlements belonging to these periods in the region. Medieval Turkish Cemetery, Kazankaya Tepesi, Kurtkulağı Mosque, Kurtkulağı Caravanserai, Yılan Kale, Sirkeli Huyuk and Yumurtalik Kalesi are among them (Figure 4-1; Table 4-1). After a short time remaining in the French occupation zone during the Turkish War of Independence, the region first became a sovereign state and annexed to the Republic of Türkiye on 23 June 1939.

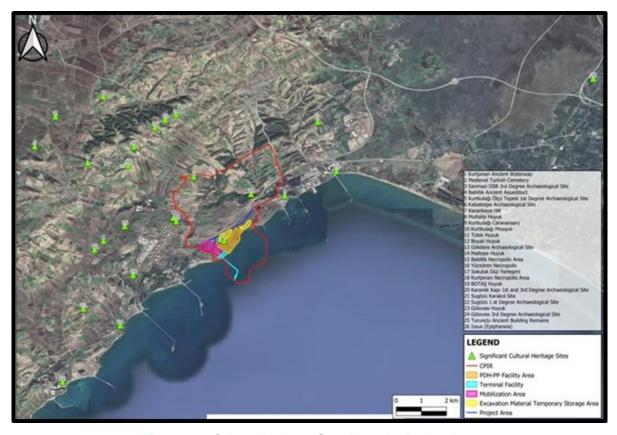


Figure 4-2. Cultural Heritage Sites Near the Project Area

Table 4-1. Cultural Heritage Sites Near the Project Route

	Name of the	Province	District	Closest Distance to the Project Area (km)	HISTORICAL PERIODS												
NO	Archaeological / Immovable Cultural Heritage				Paleolithic	Neolithic Period	Chalcolithic Period	Early Bronze Age	Middle Bronze Age	Late Bronze Age	Hittite Period	Iron Age	Hellenistic Period	Roman Period	Byzantine Period	Ottoman Period	Early Republican Period
1	Kurtpınarı Ancient Waterway	Adana	Ceyhan	0													
2	Medieval Turkish Cemetery	Adana	Ceyhan	3													
3	Sarımazı OSB 3rd Degree Archaeological Site	Adana	Ceyhan	4.8													
4	Babillik Ancient Aquedduct	Adana	Ceyhan	3.7													
5	Kurtkulağı Ölçü Tepesi 1st Degree Archaeological Site	Adana	Ceyhan	8.1													
6	Kabaktepe Archaeological Site	Adana	Ceyhan	8													
7	Kazankaya Hill	Adana	Ceyhan	6													
8	Muttalip Huyuk	Adana	Ceyhan	1.2													
9	Kurtkulağı Caravansary	Adana	Ceyhan	6													
10	Kurtkulağı Mosque	Adana	Ceyhan	5													
11	Tülek Huyuk	Adana	Ceyhan	8													
12	Boyalı Huyuk	Adana	Ceyhan	4													
13	Gökdere Archaeological Site	Adana	Ceyhan	6													
14	Maltepe Huyuk	Adana	Ceyhan	5.8													
15	Babillik Necropolis Area	Adana	Ceyhan	2.7													
16	Yüceören Necropolis	Adana	Ceyhan	5.7													

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Ar	Name of the Archaeological	Province	District	Closest Distance to the Project Area (km)	HISTORICAL PERIODS												
					Paleolithic	Neolithic Period	Chalcolithic Period	Early Bronze Age	Middle Bronze Age	Late Bronze Age	Hittite Period	Iron Age	Hellenistic Period	Roman Period	Byzantine Period	Ottoman Period	Early Republican Period
17	Sokuluk Düz Yerleşimi	Adana	Ceyhan	5.4													
18	Kurtpınarı Necropolis Area	Adana	Ceyhan	4.8													
19	BOTAŞ Huyuk	Adana	Ceyhan	3.3													
20	Karanlık Kapı 1st and 3rd Degree Archaeological Site	Adana	Ceyhan	0.5													
21	Sugözü Karakol Site	Adana	Yumurtalık	11.3													
22	Sugözü 1.st Degree Archaeological Site	Adana	Yumurtalık	8.9													
23	Gölovası Huyuk	Adana	Yumurtalık	5.9													
24	Gölovası 3rd Degree Archaeological Site	Adana	Yumurtalık	4.8													
25	Turunçlu Ancient Building Remains	Hatay	Erzin	4.8													
26	Issus (Epiphaneia)	Hatay	Erzin	16													

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# **Background for Intangible Cultural Heritage**

UNESCO defines intangible cultural heritage as traditions or life experiences such as oral traditions, performing arts, social practices, rituals, celebration events, knowledge and practices about nature and the universe, or knowledge and skills related to the production of traditional arts, which we inherit from our ancestors and will pass on to our future generations.

Most of the local people living in the Project are Yoruk. Turkmens living in nomadic life in Anatolia and Thrace were called "Yoruk". Yoruks are nomadic Turkmens who live in plateaus in summer, "güzlük" in fall and "kışlak" in winter, as groups of small and large by dealing with animal husbandry. The settlement of the Turkmens to present-day Çukurova took place after 1800s<sup>17</sup>. Turkmen tribes living intensely in the region are Avşarlar, Ceritler, Karakoyunlu, Karahacılı, Tekeli, Aydınlı, Tecirli, Bozdoğanlar, Honamlı etc. Today, Yoruks continue to cultivate their own culture, despite the transition from nomadic to settled lifestyle. However, the developments in the field of science and technology in the last century and the effect of the established culture have led to the gradual forgetting of the Yoruk culture. Apart from the Yoruks, Abazins and Crete immigrants were also found in the settlements in the study area. It is also known that Noghais, Tatars and Balkan immigrants live in the region.

After the 1877-78 Russian War, the Crimea, Abazins and Papaks started to come to the region and were placed in Cukurova by the Ottoman State during the Balkan War<sup>18</sup>, <sup>19</sup>. On the other hand, the Nogai settled in the region after the Russian pressures following the Crimean War of 1853-1856<sup>20</sup>. At the end of the 19th century, many Yoruk tribes settled on the plains and established villages <sup>21</sup> When the demography of the region is analyzed, the majority of Yoruk population is prominent<sup>22</sup>. This broad cultural quality is reflected in traditions, dances and food.

The traditions of the people living around the Project is visible in the rituals of birth, circumcision, farewell rituals for military service, marriage and death, which are the transition periods of life. These stages, which are important for people, are integrated with the local culture of the region. In Turkish folk culture, tombs, grand trees, springs are sacred according to the Ancestor Cult. These places have been holy places in search of solutions to problems encountered in life<sup>23</sup>. In our research area, it was determined that places which are considered sacred are visited, wows are made, and animals are sacrificed in order to have children. Hosting dinners called "toy" and the loud announcement of the gifts the boy's house purchased while marrying; giving gifts called "okuntu" along with invitation cards before circumcision ceremonies and weddings; and attaching a red flag to tombstones are examples of these traditions.

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<sup>17</sup> Cin, Firdevs, Ceyhan Yörüklerinde Halk Kültürü Araştırmaları, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana, 2004:8.

<sup>&</sup>lt;sup>18</sup> October 8, 1912- Jul 18, 1913

<sup>19</sup> Muradiye Malı. Sirkeli, Yassıca

<sup>&</sup>lt;sup>20</sup> Mangıt, Mercimek, Toktamış Villages

<sup>&</sup>lt;sup>21</sup> Karakayalı, Burhaniye, Kösreli, Dokuztekne, Sanmazı tribes

<sup>&</sup>lt;sup>22</sup> Adana City Yearbook, 1991: p. 25

<sup>&</sup>lt;sup>23</sup> Ocak, 1992: 11

The transition periods of life, which starts with birth and ends with death, have local customs in the region. The protection and survival of festivals, agriculture, animal husbandry, historical buildings and the natural environment are the issues that the local people pay attention to.

Finally, the cultural qualities of the region are as remarkable as its natural structure and history. The multicultural character of the region, as Greek, Christian, Turkish and Muslim customs are intertwined over time, is reflected in life, such as traditions, dances, food and the transition periods of life.

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### 5 OVERALL ASSESSMENT

#### 5.1 Overall Assessment of Tangible Cultural Heritage

During the desk study, it was understood that there was one registered archaeological remains<sup>24</sup> in the Project and associated facility area (Figure 5-1; Figure 5-2; Figure 5-3). This remains is Kurtpınar Ancient Waterway. The general material of the architectural structure is mortar and rough stones which contain volcanic natural soil. The use of the water system consisting of these mortared stone walls is quite common in the Roman states. In order to seal the walls, the inner parts of the channel that are in contact with water were plastered with mortar (Figure 5-4; Figure 5-5). It is possible to see this mortar in the part of the waterway remaining in the Project Area. Although they dry late, the materials with this structural feature have a very high strength<sup>25</sup>. In patches, the waterway remains reaches 2 meters and its width reaches about 1.5 meters. There is an aqueduct remaining (with an arch) in the northwest section of the Project Area. The aqueduct was designed as part of the waterway so that it can cross a small valley.

Due to the topographic structure, the canal was carved on the bedrock in certain places, but depending on the slope of the land, the mortar-walled canal was built in non-bedrock places. The part of the waterway that remains in the Project Area was made with a mortar- walled canal system. Since such ducts are usually made on slopes that are not too steep, they are covered with plate stones or mortar mesh systems in accordance with the elevation of the slope. Against natural disasters such as landslides, the elevation was adapted to the slope to prevent the accumulation of soil or stones on the channel.

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<sup>&</sup>lt;sup>24</sup>Current borders are determined by the decision of Adana Regional Council for the Conservation of Cultural Property, dated 27.01.2012 and numbered 542.

<sup>&</sup>lt;sup>25</sup> Vann 1976, 169.

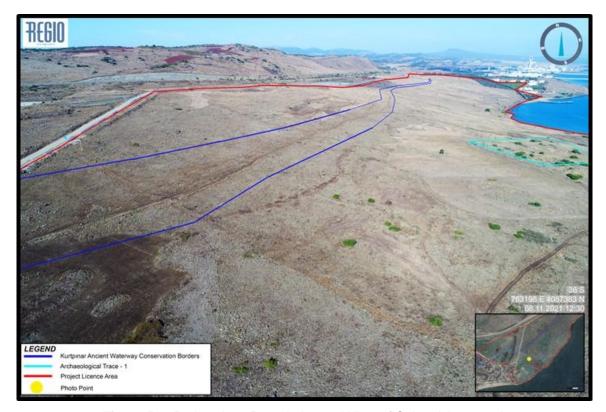


Figure 5-1. Project Area Boundaries and View of Cultural Assets – I



Figure 5-2. Project Area Boundaries and View of Cultural Assets - II



Figure 5-3. Project Area Boundaries and View of Cultural Assets - II

Source: (Regio Kültürel Miras Yönetim Danışmanlığı ve Eğitim A.Ş., 2021)



Figure 5-4. Kurtpınar Ancient Waterway Canal



Figure 5-5. Kurtpınar Ancient Waterway Mortared Wall

In addition, based on Adana Regional Council for the Conservation of Cultural Property data; there are 2 registered archaeological sites outside the Project Area but within the borders of the Ceyhan Petrochemical Industrial Zone. These sites are Karanlık Kapı Remains 1<sup>st</sup> and 3<sup>rd</sup>

Degree Archaeological Site<sup>26</sup> and Medieval Turkish Cemetery<sup>27</sup>. Karanlık Kapı Remains is 500 m far from the Project site. Here, a gate was made of local volcanic basalt stones, and there is an ancient road lined with the same material. The gate is also considered the southern gate of the ancient Cilicia Region. It is understood that the gate point of the door is vaulted. However, this vault has not survived to the present day. The walls facing the road are preserved. Except for the outward facing surface, other parts were built using brick and khorasan mortar. The road can be followed for a short distance. It is thought that it may have been used as a waterway because it is located in a narrow valley. The area also has the characteristics of the Roman Period Road architecture (Figure 5-6).



Figure 5-6. Karanlık Kapı Remains (Karanlık Kapı 1st and 3rd Degree Archaeological Site)

The Medieval Turkish Cemetery (Figure 5-7) is 3 km far from the Project Area; located to the north. The east-west oriented graves are surrounded by local stones.

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<sup>&</sup>lt;sup>26</sup> It was registered with the Adana Regional Council for the Conservation of Cultural Property's decision dated 04.04.1996 and numbered 2445.

<sup>&</sup>lt;sup>27</sup> It was registered with the Adana Regional Councils for the Conservation of Cultural Property's decision dated 26.04.2019 and numbered 11158.



Figure 5-7. Medieval Turkish Cemetery

Another registered archaeological site located to the east of the Project Area is Muttalip Huyuk, which remains in the Toros Tarım Facility today<sup>28</sup>. There are also remains of mortared walls made of rubble stones on the Huyuk, which is about 40 meters high and was settled since the Chalcolithic period.

In the field studies carried out within the scope of the Project, archaeological traces were observed at two different locations, one inside the Project Area and the other one is outside the Project Area (Figure 5-12)<sup>29</sup>.

The first of these areas is named as "Archaeological Trace-1". The area is located in the southern part of the Project Area, near the seafront (Figure 5-8). There are illicit digging pits opened by treasure hunters in the northeastern part of this site. In the western part of the illicit digging pit, possible base remains formed with large irregular stones were observed. Ceramic pieces thought to belong to the Late Roman and Early Byzantine Periods were also found on the surface of the area, which is approximately 150 meters away from the sea. The intensity of the archaeological trace in the area is low corresponding to 1-5 pieces in each 10mx10m.

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<sup>&</sup>lt;sup>28</sup>The area was declared as the 1st Degree Archaeological Site with the decision of Adana Regional Council for the Conservation of Cultural Property.

<sup>&</sup>lt;sup>29</sup> The Project Company will apply to the Adana Regional Council for the Conservation of Cultural Property to obtain official decisions regarding these areas in line with Article 4 of the Law on the Conservation of Cultural and Natural Property No. 2863.

There is a chance that these materials are carried from an another archaeological site as the result of agricultural activities, erosion etc. in the area (Figure 5-9).







Figure 5-8. Archaeological Trace-1

Figure 5-9. Late Roman- Early Byzantine Period **Ceramic Pieces** 

The other site, where the archaeological traces were observed named "Archaeological Trace-2", is located within the borders of the Ceyhan Petrochemical Industrial Zone, outside the Project Area (Figure 5-10). This area is approximately 1 km northeast of the Project Area. Ceramic pieces thought to belong to the Late Roman and Early Byzantine Periods were found on the surface of the area (Figure 5-11; Table 5-1).



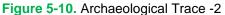




Figure 5-11. Late Roman- Early Byzantine Period Ceramic Pieces

As a result of desk and field studies, it is determined that there is one registered cultural asset that is required to be protected within the Project and associated facility area and the Ceyhan Petrochemical Industrial Zone. In addition, it has been determined by field study archaeological traces exist in the Project site and its vicinity (Table 5-1).

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Table 5-1. List of Immovable Cultural Assets in the Project Area and Its Vicinity

No	Name of the Area	Province	District/Neighborhood	Distance to the Project Area (km)	Registration Decision
1	Kurtpınar Ancient Waterway	Adana	Ceyhan/Kurtpınar	0	Adana Regional Council for the Conservation of Cultural Property's decision dated 27.01.2012 numbered 542
2	Karanlık Kapı Remains 1st and 3rd. Degree Archaeological Site	Adana	Ceyhan/Kurtpınar	0.5	Adana Regional Council for the Conservation of Cultural Property's decision dated 24.04.1996 and numbered 2445
3	Medieval Turkish Cemetery	Adana	Ceyhan/Kurtpınar	3	Adana Regional Council for the Conservation of Cultural Property's decision dated 26.04.2019 and numbered 11158
4	Muttalip Huyuk	Adana	Ceyhan/Sarımazı	1.2	Adana Regional Council for the Conservation of Cultural Property's Decision 1220
5	Archaeological Trace 1	Adana	Ceyhan/Kurtpınar	0	No Registration
6	Archaeological Trace 2	Adana	Ceyhan/Kurtpınar	1	No Registration

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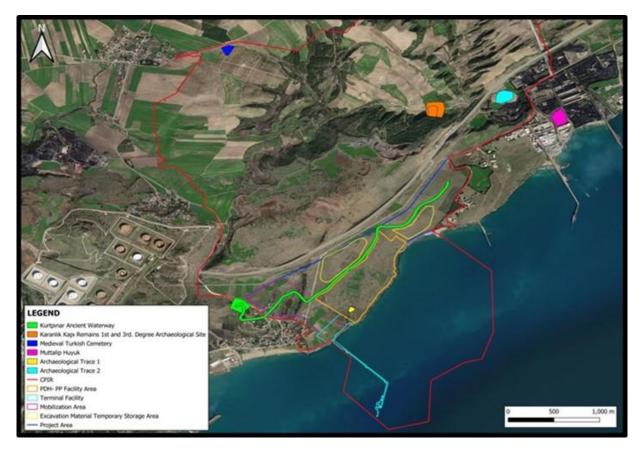


Figure 5-12. Immovable Cultural Assets in the Project Area and Surrounding Area

#### **Overall Assessment of Intangible Cultural Heritage**

Field studies for intangible cultural heritage have been carried out with qualitative interview technique in 7 settlements in the immediate vicinity of the Project. 38 people were interviewed within the scope of the study. Of these participants, 1 people live in Kurtpınarı, 2 people live in İncirli, 1 people in Gölovası, 10 people in Kurtkulağı, 4 people in Sarımazı, 4 people in Yukarıburnaz, 4 people in Aşağıburnaz, and 12 people in Turunçlu (Table 5-2; Figure 5-13; Figure 5-14).

The information of the rural settlements included in this study are as follows;

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Table 5-2. Settlement Information Included in the Study

Province	District	Neighborhood	Distance to Project Area (km)
Adana	Ceyhan	Kurtpınarı	3.5
Adana	Ceyhan	İncirli	0.2
Adana	Ceyhan	Kurtkulağı	5.8
Adana	Ceyhan	Gölovası	5
Adana	Ceyhan	Sarımazı	5.7
Hatay	Erzin	Yukarıburnaz	9.2
Hatay	Erzin	Aşağıburnaz	9
Hatay	Erzin	Turunçlu	7.3



Figure 5-13. Gölovası Settlement Vineyard House

Gölovası, Kurtpınarı, İncirli, Kurtkulağı, Sarımazı, Yukarıburnaz and Aşağıburnaz settlements located at a close distance to the Project are inhabited by Yoruks. Unlike all these settlements, Cretan immigrants live in Turunçlu settlement. All the local people living in the region speak Turkish, but Turunçlu people also speak Crete among themselves. Except for the Turunçlu people, the people of all other settlements are Sunni Muslims. The people of Turunçlu are Bektashi.

Within the scope of oral traditions passed from generation to generation, the people of the five settlements in the field of study know the stories of their ancestors who went to the Battle of

Çanakkale, and the heroic stories of the militia who defended the national independence against the French occupation during the Turkish War of Independence. It was also informed by the local people that in Kurtkulağı Village there is a mansion that was seized and turned into a French Hospital. In Turunclu settlement, people know the stories of their ancestors migrating from Crete. Apart from heroic and immigration stories, other oral traditions (such as fairy tales, lullabies, legends, beliefs, idioms, proverbs, folk songs, poems, etc.) are maintained.

In the interviews, it was determined that some customs belonging to the turning points of life (birth, circumcision, military service, wedding and death) still live in the region. These are briefly composed of the following traditions and practices:

- Birth: In pre-natal traditions, warm soil (or heated pot / heated cere or heated tile) is wrapped around the abdomen and groin to eliminate the infertility of women without children. When the time of birth is approaching the bed for the mother to lie down; clothes and the crib for the baby are prepared. The umbilical cord is cut, the honey with salt is prepared and the whole body of the baby is soaked in saltwater for a brief period and the baby is immediately washed with warm water and powdered. Salting is done more carefully in the mouth, armpits and feet, it is believed that when these parts are well salted, they will not smell when the baby grows up. After the baby's umbilical cord is cut, it is buried in places such as schools, hospitals etc. depending on the profession expected for the baby. When babies are born, a white lamp is lit in the room where the mother and baby sleep and a yellow muslin is covered over the cradle to prevent the baby from infant jaundice;
- Circumcision: While circumcision was formerly made by circumcisers and celebrated
  with circumcision feasts in the village, circumcision is performed in hospitals today. The
  circumcised child is guided by a car convoy and a special circumcision suit is dressed.
  Care is taken that the child is circumcised before starting primary school;
- Military Service: A little entertainment is organized for those who will go to the military.
   A flag is hung on the candidate soldier's house and henna is applied in his hands. In order for the soldier not to forget his home and to return safely, he is asked to lick the pacifier which he used as a baby and to bite a bagel. The pacifier and the bagel are hung on the wall and they remain there until he returns home. The candidate for the military is sent with a convoy on his journey;
- Wedding: Marriages in the region are arranged with advice of the elderly (matchmaking). Love marriages are also allowed. It is preferred for girls to marry from the age of 18 and for men from the age of 20-22. Generally, the age limit for marriage is considered to be 30. Betrothal ceremony is called "küçük tatlı" ("small dessert"). Today, there is no tradition of bride wealth. In the past, carpets were woven as dowry in Sarımazı, but today young people do not continue this tradition. Traditional handicrafts such as cross stitch crochet of cotton or wool still continued to be made. Prior to the wedding, together with the invitation cards, gifts called "okuntu" such as

shalwars, carpets, muslins and socks are given to the guests according to their degree of closeness. During the wedding, a flag is hung on the wedding house. The flag is hung after the prayer on Friday, one day before the wedding, after eating the so-called "ağız tadı" (gusto which also means, enjoyment, harmony). Weddings take 3 days. Before the wedding, the animals are butchered and the main wedding dishes such as soup, tandoor kebab, analı kızlı (kind of soup made of meat and wheat), mantı (kind of ravioli), beans, rice pilaf, and ashura are prepared. Neighbors and relatives help with cooking. In addition to these traditions, some of which have disappeared in time, local folk dances are played in weddings in the region, such as oyun havası (traditional dance music) and çiftetelli (a folk dance performed in Türkiye and the Balkan countries) etc. Musical instruments such as traditional drums and flutes (davul&zurna) are among the main traditional musical instruments used in weddings;

Death: The chin and toes of the deceased are tied. An iron knife is put on the abdomen
after bathing of the dead is completed. The obituary is announced to the neighbors by
the relatives through the mosque. Condolence reception takes 7 days. Food is brought
to the funeral home by relatives and neighbors for seven days and shared with visitors.



Figure 5-14. Interviews in Turunçlu Settlement Village Coffeehouse

In addition to the traditions of the turning points of life mentioned above, it was determined that some customs were also kept alive in the celebration of religious feasts in the region. Preparations for religious feasts begin on the day of Arefe when cemetery visits are made, and refreshments are prepared for the guests coming during the feast. Generally, kömbe fort the feats is made, and holiday clothes are purchased for everyone, especially children. After the feast prayer, neighbors, relatives and friends pay visits to see each other. Newroz Festival is also celebrated in the region to meet the arrival of spring. While Newroz used to be celebrated

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collectively with a picnic at the seaside as festive, it has lost its former importance today. The "Cretan Festival" is held in the first week of September in Turunçlu settlement.

In addition, within the scope of traditional folk beliefs; vows are made to entombed saints. These sacred areas are visited for requests such as recovery from illness, having a job or childe, having fortune, a safe return from the military. For this purpose, mostly "Topçu Dede Shrine" is visited. Topçu Dede Shrine is located on Esbak Mountain in Kurtkulağı settlement. Its distance to the Project is about 4.86 km. It was determined that the tomb would not be affected by the construction activities of the Project. People living in Kurtkulağı and Kurtpınar go to the nearby Kazankaya Hill and tie cloth to the wish trees. The hill in the Kurtkulağı District is approximately 2.75 km from the Project. It has been determined that the hill will not be affected by the construction activities of the Project. There is no wish tree tradition in other settlements. It has been observed that customs such as evil eye beads and pouring lead to repel evil eye continue. In Sarımazı settlement, large and small cattle skull sare hung on fences which indicates the garden boundary in order not to touch the evil eye, which have been seen in Anatolia since the Neolithic period.

As part of traditional medicine and healing practices, gentian is collected from the nearby mountains in all settlements. Yellow centaury oil, which is formed by dipping in olive oil, is applied to wounds, burns and rashes. In traditional folk medicine, bonesetters and healers, for umbilical hernia, are visited. It is believed that skin eruption<sup>30</sup> treatment passes by praying. Healers continue their tradition by lending a hand to one of their relatives before they die. Also, the people of the region stated that they took precautions by spreading salt which was chanted by a healer called "Yılancı Hacı" living in Hatay/ Dörtyol in order to keep snakes and scorpions away from their homes until the healer's death in 2009. In diseases such as flu and pneumonia, cupping treatment is still preferred. In Turunçlu settlement, healers are called "sınıkçı".

The public economy based on local production and consumption, which is followed by local people to maintain their lives, in animal husbandry and agriculture performed traditionally based on the knowledge obtained from ancestors. As an agricultural product; wheat, sunflower, corn, peanut, watermelon, tangerine, orange are produced in most of the farms. In addition to these products, olive cultivation is made in Sarımazı settlement. There are Agricultural Credit Cooperative branches for farmers in all settlements.

During the interviews, it was found that traditional games such as tipcat, hide-and-seek, a sound, marble and leapfrogging were widely played by children in the past but today, these games were mostly replaced by computer games.

Within the scope of traditional handicrafts, cross stitch crochet of cotton and wool still continue. In addition, sewing courses are opened periodically in some settlements. According to the traditional architecture of the region, houses built using stone, wood and adobe together are

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<sup>30</sup> Shingles

no longer built. Single or double story buildings, mostly made of reinforced concrete, form today's architecture.

Traditional culinary culture consists of kömbe, börek (a general name for filled pastries in various shapes), bayram çöreği (a sweet pastry), analı kızlı (a kind of soup made of wheat and meat), sikma (pastry filled with inced tomatoes and onions and served for breakfast), tirşik (soup of a local herb - arum maculatum), kebab, semolina halva, tulumba and hamur kızartma tatlısı (syrup-soaked pastries) çökelek (cottage cheese), tomato paste, pepper, jam and butter are made for the winter. Bringing people from different geographies and cultural structures in the past and having them resettled in this region exhibits itself in the local dishes of the villages in the region. It is observed that in Turunclu settlement where Cretan immigrants are living, a diet based on seafood and vegetables (chicory, mustard, zucchini flower, bostan, mushroom, nopitaraca) has been adopted, whereas in other 5 settlements where Yoruks are located, meat-based diet is common.

As a result of the studies, it has been determined that the Project will not have any negative impact on intangible cultural heritage. On the other hand, the economic mobility that the Project will create, the expectations that commercial movements will increase in the region during the post-project period may also have positive effects on intangible cultural heritage. The preparation of social investment Project for rural tourism, including various Projects including the ancient city of Issus (Epiphaneia) (Figure 4-2- Table 4-1), which is included in the Project Area, and their implementation together with the local actors in the region with the financial support of the Project, can create added value in the protection of cultural heritage and economic development of the people of the region.

#### 5.3 **Critical Cultural Heritage**

Critical cultural heritage is defined as 'one or both of the following types of cultural heritage:

- i. The internationally recognized heritage of communities who use, or have used within living memory the cultural heritage for long-standing cultural purposes; or
- Legally protected cultural heritage areas, including those proposed by host ii. governments for such designation'.

Examples of legally protected areas which would be considered as cultural heritage 'include world heritage sites and nationally protected areas' (IFC, 2012a, 3, fn6).

Under Performance Standard 8 critical cultural heritage should not be removed, significantly altered, or damaged. In exceptional circumstances when impacts on critical cultural heritage are unavoidable, a process of informed consultation and participation of the Affected Communities should be applied as described in Performance Standard 1 and which uses a good faith negotiation process that results in a documented outcome. External experts should be retained to assist in the assessment and protection of critical cultural heritage.

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# 5.3.1 Internationally Recognized Cultural Heritage Sites

World Heritage List<sup>31</sup> and World Heritage Tentative<sup>32</sup> List of UNESCO are considered under the internationally recognized cultural heritage sites.

Türkiye has 19 sites inscribed on the World Heritage List of UNESCO (as of 24 August 2022). Those located in the wider region of the Project are listed in Table 5-3 and shown in Figure 5-15. The closest site to the Project is the "Göbekli Tepe" in Şanlıurfa, which is located at a distance of 264 km to the south of the Project.

Among the sites included in the World Heritage Tentative List of UNESCO, 9 sites are located in the wider region of the Project. The closest sites to the Project are the "Ancient City of Anazarbos (Adana/Kadirli), which is located at a distance of 37 km to the north of the project and "Karatepe-Aslantaş Archaeological Site" in Osmaniye, which is located at a distance of 47 km in the north of the Project.

None of the internationally recognized cultural heritage sites is overlapping with the study area. Therefore, Project activities do not have any impact on the areas listed neither in the World Heritage List or the World Heritage Tentative list. In case alternative areas need to be identified during the construction or operation phase of the Project, such as quarries or dump sites, the areas listed in Table 5-3 below should be avoided.

Table 5-3. Internationally Recognized Cultural Heritage Areas (World Heritage List and World Heritage Tentative List of UNESCO)

No	Site Name	Province	Distance to
	World Heritage List of UNESCO		Project (km)
1	Nemrut Dağ	Adıyaman	272
2	Göbekli Tepe	Şanlıurfa	264
	World Heritage Tentative List of UNESCO	Province	Distance to Project (km)
3	Ancient City of Anazarbos	Adana	37
4	Ancient City of Korykos	Mersin	186
5	Archeological Site of Zeugma	Gaziantep	169
6	Eshab-ı Kehf Kulliye (Islamic-Ottoman Social Complex)	Mersin	101
7	St. Pierre Church	Hatay	78
8	Karatepe-Aslantaş Archaeological Site	Osmaniye	47
9	The Underground Water Structures in Gaziantep; Livas' and Kastels	Gaziantep	127
10	Vespasianus Titus Tunnel	Hatay	86
11	Yesemek Quarry and Sculpture Workshop	Gaziantep	68

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<sup>31</sup> https://whc.unesco.org/en/list/

<sup>32</sup> http://whc.unesco.org/en/tentativelists/



Figure 5-15. Internationally Recognized Cultural Heritage Sites

#### 6 CONCLUSION

# **Conclusion on Tangible Cultural Heritage**

Field studies for cultural assets within the Project were carried out in accordance with the Law on Protection of Cultural Heritage numbered 2863. All areas identified within both the Project Area and the Ceyhan Petrochemical Industrial Zone have been evaluated according to the criteria for Guidance on Heritage Impact Assessments for Cultural World Heritage Properties<sup>33</sup> (Table 6-1).

Within the scope of Ceyhan Propane Dehydrogenation - Polypropylene Production Project, it is planned to construct a Facility Area with PDH and PP Units and Base Campuses (Figure 1-1). In the field studies conducted for archaeological purposes, one registered ancient waterway (Kurtpınar Ancient Waterway) and one archaeological trace (Archaeological Trace 1) were identified within the Project Area. In addition, it is understood as a result of the studies that there are two registered archaeological sites (Karanlık Kapı Remains 1st and 3rd. Degree Archaeological Site and Medieval Turkish Cemetery) and one archaeological trace (Archaeological Trace 2) outside the Project Area but within the Ceyhan Petrochemical Industrial Zone. The term "archaeological trace" here refers to areas having some archaeological findings and surface materials (such as ceramics, roof tiles, architectural stone blocks, glass object shards, stone object shards, metal object shards, bones, etc.). The intensity of the archaeological traces in these areas is low corresponding to 1-5 pieces in each 10mx10m. There is a chance that these materials are carried from an archaeological site as the result of agricultural activities, erosion etc. or these materials are related to a small archaeological site/some remains in the area.

Also, the presence of one more registered archaeological site (Muttalip Huyuk) 1.2 km away from the Project Area and outside the Ceyhan Petrochemical Industrial Zone has been identified.

The "Kurtpınar Ancient Waterway" belonging to the Roman period, which is located within the Project and registered and protected by the law numbered 2863, may be negatively affected by the Project construction activities. The ancient waterway, which can be followed in the Project site, is not visible in certain areas.

In order to protect the ancient waterway as in-situ and to prevent possible negative effects of construction activities, the official letter of Adana Regional Council for the Conservation of Cultural Property (dated 25.06.2021 and numbered E-26571867-165.99-1486096) states that before the blasting activities planned to be carried out within the scope of the Project construction works, the necessary mitigation measures must be taken to prevent potential damages to the ancient waterway on the Project site, and technical documentation showing

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<sup>33</sup> ICOMOS (2011), "Guidance on Heritage Impact Assessments for Cultural World Heritage Properties", https://kvmgm.ktb.gov.tr/Eklenti/4365,kmed-rehberipdf.pdf?0

the condition of the ancient waterway should be prepared and submitted to Adana Regional Council for the Conservation of Cultural Property.

In accordance with the above-mentioned official letter, technical documentation (measured drawings, 3D Modelling, etc.) for the ancient waterway will be completed in accordance with best practices and all data and technical documentation will be submitted to Adana Regional Council for the Conservation of Cultural Property.

Prior to all ground breaking activities under Archaeological Trace 1, it is recommended to deliver the specific chance find procedure to staff that will carry out the work and to conduct all activities under the supervision of an archaeologist employed by the Project management. Toothless buckets have to be used during the levelling activities to be carried out under the field work. Field work should be stopped in case of encountering any archaeological remains and the chance find procedure shall be followed. Field studies have also been carried out within the borders of the Ceyhan Petrochemical Industry Region in order to determine the level of influence of the Project activities on archaeological and tangible cultural heritage assets in and within immediate vicinity of the Project site. In these studies, it has been determined that there are 2 registered archaeological sites in Ceyhan Petrochemical Industrial Zone, apart from the Ceyhan Propane Dehydrogenation - Polypropylene Production Project Area. Additionally, archaeological traces were present at one location (at Archaeological Trace-2), apart from the Ceyhan Propane Dehydrogenation - Polypropylene Production Project Area.

According to the evaluation results, it was determined that 4 archaeological remains outside the Project <u>are not directly affected by Project construction activities</u> (Table 6-1). However, these areas may also be exposed to some indirect effects of construction activities to be carried out during the Project. In the construction phase of the Project some activities that will be required for the construction such as possible explosions, working of crushers, vibration created by heavy tonnage vehicle traffic, opening new access roads apart from the existing ones, opening stone and sand quarries along with excavation lines may have negative effects on these cultural assets. Therefore, when designing all Project activities, it is recommended to make necessary plans to take into account the existing archaeological and cultural assets and to minimize the possible effects on these assets.

Many archaeological sites have been identified around the Project Area and in the region as a result of past surveys and archaeological excavations. In this context, the "Cultural Heritage Management Plan" (Annex- Ia) and the "Chance Find Procedure" (Annex- Ib) should be used during the activities that will be carried out in the Project Area and that require intervention to the soil. This plan and procedures should be shared with subcontractors of the Project and the subcontractors should prepare a more detailed "Cultural Heritage Management Plan" and "Chance Find Procedure" to apply them throughout the Project.

Table 6-1. Evaluation of Impact on Tangible Cultural Heritage Assets

No	Name of the Area	Province	District	Registration Status	Scale and Severity of	The Value of Cultural Heritage	General Impact
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Annex-I: Cultural Heritage Impact Assessment Report

					Change / Impact		
1	Kurtpınar Ancient Waterway	Adana	Ceyhan/ Kurtpınar	Registered	Major Change	High	Large / Very Large
2	Karanlık Kapı 1st and 3rd Degree Archaeological Site	Adana	Ceyhan/ Kurtpınar	Registered	No Change	High	Neutral
3	Medieval Turkish Cemetery	Adana	Ceyhan/ Kurtpınar	Registered	No Change	High	Neutral
4	Muttalip Huyuk	Adana	Ceyhan/ Sarımazı	Registered	No Change	High	Neutral
5	Archaeological Trace 1	Adana	Ceyhan/ Kurtpınar	Unregistered	Major Change	Negligible	Slight
6	Archaeological Trace 2	Adana	Ceyhan/ Kurtpınar	Unregistered	No Change	Low	Neutral

# **Conclusion on Intangible Cultural Heritage**

The assessment of the Project's impact on the intangible cultural heritage has been made at and around the Project site in accordance with international standards and local legislation. The findings are presented in Section 5.2 above. The findings show a number of local ICH elements, but none of them are specific to the geography studied. Additionally, none of the identified ICH elements are directly or indirectly tied to a particular location, particular building, or particular artifact. Therefore, it can be concluded that the intangible cultural property samples determined in the study were not affected by the Ceyhan Propane Dehydrogenation - Polypropylene Production Project. The registered ICH elements in the national inventory and fieldwork findings are listed below (Table 6-2; Table 6-3; Table 6-4):

Table 6-2. Intangible Cultural Heritage Elements of the Provinces Crossed by the Project as Registered in the National Inventory

Province	District	Village	Name of The Element In The National Inventory
Adana	Ceyhan	Kurtkulağı- Kurtpınarı- İncirli- Sarımazı	Kaynar (Puerperant Sharbat)
			Keşkek/Local Dish
Hatay	<b>-</b> ·	Yukarıburnaz- Aşağiburnaz- Turunçlu	Hıdırellez
	Erzin		Traditional Olive Oil

Table 6-3. The Village Basis Defined Intangible Cultural Heritage Elements in the Fieldwork

Province	District	Village	Defined Intangible Cultural Heritage Elements			
		Kurtkulağı	Topçu Dede Shrine			
		Rankalagi	Wish Tree			
	Adana Ceyhan	Ceyhan	Kurtpınarı	Wish Tree		
Adana			Ceyhan	Ceyhan	İncirli	Wish Tree
				Sarımazı	Animal Skull	
		Kurtkulağı	Narratives about Heroes on Turkish Independence War			
Hotov	Erzin	Turningalis	Historical Immigration Stories			
Hatay	EIZIN	Turunçlu	Festival of Cretans			

Table 6-4. The Defined Common Intangible Cultural Heritage Elements for All Villages in the Fieldwork

Province District Village	Elements
Adana- Ceyhan- Kurtkulağı-Kurtpınarı-İncirli-Sarımazı Hatay Erzin Turunçlu	Turkish Evil Eye Bead  Tales, Lullaby, Legends, Beliefs, Idioms, Proverbs, Folk Songs, Manis etc.  Traditional treatment of infertility  Puerperal Sherbet  Bathing Babies with Traditional Beliefs  Celebration for first tooth of babies  Circumcision Ceremony  Engagement Ceremony  Trousseau tradition  Henna Night  Wedding Ceremony  Condolence Ceremony  Kanaviçe/ Cross-stitch  Needle lace  Walnut Churchkhela Making  Analı Kızlı/ Local Dish  Tırşik/Local Dish  Semolina Desert/Local Dish  Syrup-soaked pastry (Tulumba Desert) /Local Dish  Sıkma/Local Dish  Newroz  St. John's Wort oil  Cupping  Steel and Stick  Hide and Seek

As the result of field works on the intangible cultural heritage, any harm to cultural patterns because of the Project activities is not foreseen for all settlements in the study area.

During the Project activities, active stakeholder engagement has to continue and any sensitivity which may the Project cause must be resolved. In addition, the Project staff must be informed about the intangible cultural heritage assets in the region and their importance for the local communities.

On the other hand, the economic activity which will be created by the Project and expected increase in commercial activities in the region during the operation period after the construction of the Project may also create positive impacts on intangible cultural heritage. Preparing social investment Projects for rural tourism, including various Project that cover the ICH samples located in the Projects and implementing these in cooperation with the local actors with the financial support of the Project may create added value in safeguarding cultural heritage and economic development of the people in the region.

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