

# CY000LIM081 - AKROUNTA RECHARGE WEIR (AKROUNTA RESERVOIR)

#### **Description**

The term Recharge Weir (RW) describes small weirs constructed in rivers to achieve periodic retention of the flowing water for aquifer recharge purposes of and / or to reduce flooding. This is often done with stone gabions that are placed perpendicularly to the flow of the river.

The RW of Akrounta LIM081 or Arkounta Reservoir is located in the river bed of Akrounta or Argaki tou Monasteriou as it is known. It is found within the administrative area of the Akrounta community 0.89km northwest from the community centre. It is located a few kilometers upstream of the Germasogeia reservoir (LIM025). Hydrologically it is also related with the Irrigation Reservoir of Arakapa No.1 (LIM016). It was constructed in 1947 in order to provide permanent irrigation to the fields of the community with central water transfer grooves. The project was executed by the Irrigation Department of Akrounta (founded in 1945) with a contribution of the colonial Government. In order to implement the project, the Irrigation Department of Akrounta had to borrow £ 1500 with a repayment period of 15 years, 3% interest rate and annual instalment of 61 pounds, 16 shillings and 6 piastres. For its repayment a tax was imposed to beneficial landowners according to the extent of their land. (1) It has an extent (area) of 1399,2628 m2 .m2 and a capacity of 23000 m3. The water is used for the irrigation of an area of 53 hectares (2). The RW is fed by the flow of the river, which drains to a catchment area of 25,5 km2 (3). The presence of the water in the RW is permanent.

The wetland vegetation includes shrubby and arborescent species such as Nerium oleander, Pinus brutia, Rubus sanctus, Tamarix sp., the reeds Arundo donax, Phragmites australis, herbaceous with Polypogon maritimus, and is an alien species the Acacia sp.

The fauna, the wetland includes the crab Potamon potamios, various species of dragonfly, Gambusia affinis fish, a type of frog the Pelophylax bedriagae, and three species of birds Columba palumbus, Falco tinnunculus, Alectoris chukar. There have also been reports of periodic presence of the Eurasian Coot (Fulica atra), Garganey(Anas querquedula), mallards (Anas platyrhynchos), the kingfisher (Alcedo atthis). There was also a reference for the counting of at least 85 Black-crowned night heron(Nycticorax nycticorax) in June 2014. The presence of an eel is also reported (Anguilla anguilla) in the past (1). Relevant information is posted in the "Archive" of wetlands and on the website of the Cultural Group of Akrounta. The RW falls into a Temporary Restricted Area of Hunting (4) Is also

located within the immediate area Reservoir Potable Water Protection of Germasogeia reservoir (LIM025) (5).

The biological value of the wetland is considered to be low.

One problem that the RW is facing is the blockage caused by precipitation of 20 years after its construction. Since then, the capacity for the retention of amounts of water has been reduced significantly.

Reporting period of Raw Data: 04/06/2015 Field Surveyor: A. Papatheodoulou

- (1) Louroutziatis P. (2015). Presentation "The wetlands of Akrountas". Cultural Club of Akrounta 15 May 2015.
- (2) Christofides N., Kyrou K., Pisti E., Ioannou A., Avgoustis M., Chatzigianni N. (2009). Dams of Cyprus. Water Development Department, Ministry of Agriculture, Natural Resources and Environment
- (3) Evangelidou S. (2011). Dams of Cyprus and their environment. Energy, Environment and Water Research Center (EEWRC). The Cyprus Institute.

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#### **General information**

#### **Basic information**

Wetland location:	Inland	
Wetland type:	Artificial	
Natural / Artificial:	River recharge barri	
Area (Ha):	0.13990	
Hydrological interaction with other wetland:	Yes - LIM025	
Water salinity:	Fresh	
Fresh water entry:	Torrent / Stream	
Surface water runoff:	Outflow controlled by spillway	
Open water area (%):	5 - 25	
Hydroperiod:	Permanent	

#### **Geographic information**

Region:	AKROUNTA	
Regional section:	LIMASSOL	
Coordinates (WGS84):	33.075300 E - 34.770900 N	

#### **Biological significance**

Biological significance: Low

#### Ramsar wetland types

Ramsar type	Coverage (%)
2 Ponds; includes farm ponds, stock ponds, small tanks; (generally below 8 ha)	> 95

# **Protection statuses & other designations**

#### **Protection status**

Protection status category	Protection status subcategory	Site name	Code	Coverage (%) Legislation
Aquatic Protection	Close Protection Zone for Drinking Water Supply Re			100
Game Reserve Area	Temporary			100
Planning Regime	Other		Z3	94
Planning Regime	Other		Z1	6

# **Ecosystem Services, Activities & Impacts**

#### **Ecosystem Services**

Type of Ecosystem service	Ecosystem service	Scale of Benefit	Importance
Regulatory services	Flood hazard regulation		
Regulatory services	Water regulation		
Supporting services	Provision of habitat		

#### **Activities on wetland**

Activities	Intensity
421 = disposal of household waste	Low
530 = Improved access to site	Low
800 = Landfill land reclamation and drying out general	Low
910 = Silting up	High

952 = eutrophication

#### **Activities on drainage basin**

Activities	Intensity
100 = Cultivation	Low
107 = tree crops	Medium
430 = Agricultural structures	Low
530 = Improved access to site	Low

#### **Impacts**

Impact type	Intensity
LA- = Decrease in transport capability	High
LR- = Decrease in flow regulation	High
SS- = Soil siltation	High

## **Habitats & Vegetation**

#### **Habitat types**

Habitat types	Coverage (%)
CY17 Water-fringing beds of tall canes and medium tall grass beds	51 - 75

#### **Vegetation types**

Vegetation type	Coverage (%)
Alien Species	< 5
Emergent	76 - 95
Shrubby / Arborescent	< 5

# **Species**

#### **Flora**

Species	Dominance	Reference
Acacia sp.	Present	A. Papatheodoulou, 04/06/2015
Arundo donax	Dominant	A. Papatheodoulou, 04/06/2015
Nerium oleander	Present	A. Papatheodoulou, 04/06/2015
Phragmites australis	Present	A. Papatheodoulou, 04/06/2015
Pinus brutia	Present	A. Papatheodoulou, 04/06/2015
Polypogon maritimus	Present	A. Papatheodoulou, 04/06/2015
Rubus sanctus	Present	A. Papatheodoulou, 04/06/2015
Tamarix sp.	Present	A. Papatheodoulou, 04/06/2015

#### Fauna

Birds	Population	Nesting status	References
Amphibians		Presence in wetland	References
Pelophylax bedriaga	ne (Pallas 1771)	Common	A. Papatheodoulou, 04/06/2015
Fishes		Presence in wetland	References
Gambusia affinis (S.	F. Baird & Girard, 1853)		A. Papatheodoulou, 04/06/2015
Invertebrates		Presence in wetland	References

-	Common	A. Papatheodoulou, 04/06/2015
Potamon potamios (Olivier, 1804)		A. Papatheodoulou, 04/06/2015

#### References

Evangelidou S. (2011). Dams of Cyprus and their environment. Energy, Environment and Water Research Center (EEWRC). The Cyprus Institute.

Water Development Deapartment Data (Accessed 07/2015)

Λουρουτζιάτης Π. (2015). Παρουσίαση «Οι υγροβιότοποι της Ακρούντας». Πολιτιστικός Όμιλος Ακρούντας 15 Μαΐου 2015.

Game and Fauna Service Data (Accessed 06/2015)

Christofides N., Kyrou K., Pisti E., Ioannou E., Augousti M., Hatzigiannis N. (2009). Dams of Cyprus. Water Development Department, Ministry of Agriculture Natural Resources and Environment

### Representative Image & Map



LIM081

ΠΟΤΑΜΙΟ ΕΜΠΛΟΥΤΙΣΤΙΚΟ ΦΡΑΓΜΑ ΑΝΑΣΧΕΣΗΣ ΑΚΡΟΥΝΤΑΣ (ΥΔΑΤΟΦΡΑΚΤΗΣ ΑΚΡΟΥΝΤΑΣ)/ AKROUNTA RECHARGE WEIR (AKROUNTA RESERVOIR)



Πρόγραμμα απογραφής των υγροτόπων της Κύπρου/ Inventory of the wetlands f Cyprus

Δεδομένα Χάρτη: Google, DigitalGlobe

Map Data: Google, DigitalGlobe





🔲 'Όρια Υγρότοπου/ Wetland's Boundaries



