

# Lower Colorado River Accounting System

## Demonstration of Technology

### Documentation for Calendar Year 2002

#### Appendix I: Part 2

## Water Balance and Consumptive Use Calculations

# CONTENTS

	<i>Page</i>
Introduction	I.2.-1
Water-Balance Tables Description	I.2.-1
Annual water-balance sheet	I.2.-3
Monthly water-balance sheet	I.2.-7
$Q_{us}$ and $T_{rm}$ and $T_{rum}$ inflow components sheet	I.2.-7
$Q_{ex}$ , $S_r$ , and $S_a$ outflow components sheet	I.2.-8
$CU_d$ outflow component sheet	I.2.-8
$ET_{ag}$ outflow component sheet	I.2.-9
$ET_{pht}$ outflow components sheet	I.2.-9
E and $Q_{ds}$ outflow components sheet	I.2.-9
Evaporation from the mainstream	I.2.-10
Evaporation from major delivery canals within irrigation districts Indian reservations	I.2.-10
Diverter ET sheets	I.2.-11
BIBLIOGRAPHY	I.2.-13
Hoover Dam to Davis Dam Water-Balance Table:	
Annual Water Balance	Sheet A
Monthly Water Balance	Sheet B
$Q_{us}$ ,and $T_{rm}$ and $T_{rum}$ Inflow Components	Sheet C
$Q_{ex}$ , $S_r$ , and $S_a$ Outflow Components	Sheet D
$CU_d$ Outflow Component	Sheet E
Cottonwood Cove, NV	Sheet E
Katherine Landing/Willow Beach, AZ	Sheet E
LCRD Project - Davis Dam, AZ	Sheet E
McAlister Housing Subdivision AZ	Sheet E
$ET_{ag}$ Outflow Component	Sheet F
$ET_{pht}$ Outflow Component	Sheet G
E and $Q_{ds}$ Outflow Components	Sheet H

# CONTENTS

	<i>Page</i>
Diverter ET:	
Lake Mead National Recreation Area, AZ	Sheet I
Lake Mead National Recreation Area, NV	Sheet J
 Davis Dam to Parker Dam Water-Balance Table:	
 Annual Water Balance	Sheet A
Monthly Water Balance	Sheet B
$Q_{us}$ , and $T_{rm}$ and $T_{rum}$ Inflow Components	Sheet C
$Q_{ex}$ , $S_r$ , and $S_a$ Outflow Components	Sheet D
Metropolitan Water District of Southern California (MWD)	Sheet D
Central Arizona Water Conservation District (CAP)	Sheet D
$CU_d$ Outflow Component:	Sheet E
Bullhead City, AZ	Sheet E
MVIDD Domestic	Sheet E
Big Bend Water District, NV	Sheet E
Southern California Edison, NV	Sheet E
Golden Shores Water Cons. Dist., AZ	Sheet E
Arizona-American Water Company, AZ	Sheet E
Needles, CA	Sheet E
Havasut Water Company, CA	Sheet E
Mohave Water Conservation District, AZ	Sheet E
Lake Havasu City & MCWU, AZ	Sheet E
Sportsman's Park, NV	Sheet E
Boy Scouts, NV	Sheet E
Southern California Gas, CA	Sheet E
BLM-Black Meadow, CA	Sheet E

# CONTENTS

	<i>Page</i>
BLM Permittees, AZ	Sheet E
Mohave County Parks, (Davis Dam Camp), AZ	Sheet E
Fort Mohave Indian Reservation, NV (Avi)	Sheet E
Crystal Beach Water Conservation District, AZ	Sheet E
Fort Mohave Indian Reservation,, AZ	Sheet E
Fort Mohave Indian Reservation, CA	Sheet E
AZ State Parks-Windsor Beach, AZ	Sheet E
South Point Power Plant	Sheet E
Pacific Gas & Electric, CA	Sheet E
Topock, AZ	Sheet E
Chemehuevi Indian Reservation, CA	Sheet E
ET <sub>ag</sub> Outflow Component	Sheet F
ET <sub>pht</sub> Outflow Component	Sheet G
E and Q <sub>ds</sub> Outflow Components	Sheet H
Diverter ET:	
Bill Williams River, AZ	Sheet I
Bill Williams National Wildlife Refuge, AZ	Sheet J
Chemehuevi Indian Reservation, CA	Sheet K
Fort Mohave Indian Reservation, AZ	Sheet L
Fort Mohave Indian Reservation ,CA	Sheet M
Fort Mohave Indian Reservation, NV	Sheet N
Havas National Wildlife Refuge, AZ	Sheet O
Havas National Wildlife Refuge , CA	Sheet P
Havas State Park (Windsor Beach), AZ	Sheet Q
Lake Mead National Recreation Area, AZ	Sheet R
Lake Mead National Recreation Area, NV	Sheet S
Moabi Park, CA	Sheet T
Mohave Valley I & DD, AZ	Sheet U
State of Arizona	Sheet V

# CONTENTS

	<i>Page</i>
State of California	Sheet W
State of Nevada	Sheet X
PageParker Dam to Imperial Dam Water-Balance Table:	
Annual Water Balance	Sheet A
Monthly Water Balance	Sheet B
$Q_{us}$ , and $T_{rm}$ and $T_{rum}$ Inflow Components	Sheet C
$Q_{ex}$ , $S_r$ , and $S_a$ Outflow Components	Sheet D
$CU_d$ Outflow Component	Sheet E
Lakeside Enterprises, CA	Sheet E
Hillcrest Water Company, AZ	Sheet E
Town of Parker, AZ	Sheet E
Ehrenburg Improvement Association, AZ	Sheet E
Parker Dam and Government Camp, CA	Sheet E
BLM Permittees, CA	Sheet E
BLM Permittees, AZ	Sheet E
Brook Water, AZ	Sheet E
Colorado River Indian Tribes (CRIT) Domestic Use	Sheet E
Blythe Energy Project	Sheet E
Poston, AZ	Sheet E
Cibola, AZ	Sheet E
Martinez Lake, AZ	Sheet E
Earp, CA	Sheet E
Vidal, CA	Sheet E
Palo Verde, CA	Sheet E
Big River, CA	Sheet E
Blythe, CA	Sheet E

# CONTENTS

	<i>Page</i>
Ripley, CA	Sheet E
ET <sub>ag</sub> Outflow Component	Sheet F
ET <sub>ph</sub> Outflow Component	Sheet G
E and Q <sub>ds</sub> Outflow Components	Sheet H
Diverter ET:	
Arkelian Farms, AZ	Sheet I
Bernal Farm, CA	Sheet J
Cibola Valley Irrigation and Drainage District	Sheet K
Cibola National Wildlife Refuge, AZ	Sheet L
Cibola National Wildlife Refuge, CA	Sheet M
Clark Farm, CA	Sheet N
Colorado River Indian Reservation, AZ	Sheet O
Colorado River Indian Reservation, CA	Sheet P
Ehrenberg Farm, AZ	Sheet Q
Imperial National Wildlife Refuge, AZ	Sheet R
Imperial National Wildlife Refuge, CA	Sheet S
North Lyn-de Farm, CA	Sheet T
Palo Verde Irrigation District, AZ	Sheet U
Palo Verde Irrigation District, CA	Sheet V
Picacho State Recreation Area, CA	Sheet W
South Lyn-de Farm, CA	Sheet X
State of Arizona	Sheet Y
State of California	Sheet Z
Imperial Dam to Mexico Water-Balance Table:	
Annual Water Balance	Sheet A
Monthly Water Balance	Sheet B
Q <sub>us</sub> and T <sub>rm</sub> and T <sub>rum</sub> Inflow Components	Sheet C
All American Canal at Station 1117 (IID and CVWD)	Sheet C

# CONTENTS

	<i>Page</i>
Wellton-Mohawk Irrigation and Drainage District	Sheet C
Discharge to MODE/MOD from DPOC and DW wells	Sheet C
$Q_{ex}$ , $S_r$ , and $S_a$ Outflow Components	Sheet D
$CU_d$ Outflow Component	Sheet E
City of Yuma, AZ	Sheet E
Yuma Proving Ground, AZ	Sheet E
City of Winterhaven, CA	Sheet E
Marine Corps Air Station, AZ	Sheet E
Southern Pacific Rail Road, AZ	Sheet E
Yuma Mesa Fruit Growers, AZ	Sheet E
Yuma Area Office, USBR, AZ	Sheet E
APS Yucca Power Plant, AZ	Sheet E
Yuma Union High School, AZ	Sheet E
Cocopah Bend RV Park, AZ	Sheet E
State Prison, AZ	Sheet E
Yuma County, AZ	Sheet E
Bard, CA	Sheet E
Cocopah Indian Reservation	Sheet E
City of Somerton, AZ	Sheet E
City of Gadsden, AZ	Sheet E
City of San Luis, AZ	Sheet E
$ET_{ag}$ Outflow Component	Sheet F
$ET_{pht}$ Outflow Component	Sheet G
E and $Q_{ds}$ Outflow Components	Sheet H
Diverter ET:	
Desert Lawn Memorial	Sheet I
Fort Yuma Indian Reservation, AZ and Homesteads	Sheet J
Fort Yuma IR, Mittry SWA, and Yuma Proving Ground, AZ	Sheet K

# CONTENTS

	<i>Page</i>
Fort Yuma Indian Reservation, CA	Sheet L
Fort Yuma Indian Reservation, Bard Unit, CA	Sheet M
Fort Yuma IR, Indian Unit, CA	Sheet N
Fort Yuma IR and Picacho State Recreation Area, CA	Sheet O
Fort Yuma IR & Yuma Proving Ground, CA	Sheet P
Hillander “C” ID , AZ	Sheet Q
Imperial National Wildlife Refuge, AZ	Sheet R
Imperial National Wildlife Refuge, CA	Sheet S
Imperial NWR & Yuma Proving Ground, CA	Sheet T
Mittry Lake State Wildlife Area, AZ	Sheet U
North Cocopah Indian Reservation, AZ	Sheet V
North Gila Valley Irrigation District, AZ	Sheet W
Pichacho State Recreation Lands, CA	Sheet X
Sturges Gila Monster Ranch, AZ	Sheet Y
State of Arizona	Sheet Z
State of Arizona-Limitrophe	Sheet AA
State of Arizona-Down Gradient from YMIDD	Sheet AB
State of California	Sheet AC
Unit “B” Irrigation and Drainage District	Sheet AD
University of Arizona Agricultural Station, AZ	Sheet AE
West Cocopah Indian Reservation, AZ	Sheet AF
Yuma Irrigation District, AZ	Sheet AG
Yuma Mesa I & DD, AZ	Sheet AH
Yuma Proving Ground, AZ	Sheet AI
Yuma Proving Ground, CA	Sheet AJ
Yuma County Water Users Association (Yuma Valley ID), AZ	Sheet AK



## Appendix I, Part 2

# Water Balance and Consumptive Use Calculations

### Introduction

This document presents the water balance used by the Lower Colorado River Accounting System and the resultant consumptive use (CU) and phreatophyte water use (WU) values for Calendar Year 2002.

### Water-Balance Tables Description

Tables that display the water balance and the data and calculations used to calculate CU and WU are referred to as the water-balance tables. The water-balance tables display calculations of inflows, outflows, and the residual of the water balance. The water-balance tables also display the distribution of the residual to each of the inflow and outflow values in proportion to the magnitude and the variance (the square of the standard error of estimate) of each inflow and outflow value.

The algebraic sum of agricultural and phreatophyte evapotranspiration (ET) and the portion of the residual distributed to agricultural and phreatophyte ET provides the final estimate of agricultural CU and phreatophyte WU. The algebraic sum of the estimate of domestic use and the portion of the residual distributed to domestic use provides the final value of domestic consumptive use. As the residual can be either a positive or negative number, agricultural CU and phreatophyte WU can be slightly larger or smaller than agricultural and phreatophyte ET. Similarly, the final value of domestic consumptive use can be slightly larger or smaller than the estimate used in the water balance.

Each water-balance table consists of several sheets. The first sheet is a summary sheet, labeled sheet A, which includes the annual water balance, the distribution of the residual, the standard error of estimate (SEE) values used to distribute the residual, the resultant SEE of the distributed values, and the resultant values of agricultural and domestic CU and phreatophyte WU within the reach as a whole, and for each diverter within the reach.

The sheets following sheet A (labeled sheets B, C, ... AK<sup>1</sup>) are used to store data and the results of intermediate calculations. Each sheet is titled and generally reports one topic. At the top of each sheet is a summary or total of the calculations made on that sheet, the source of the data displayed on the sheet, and the type of calculations performed within the sheet. A more detailed description of each sheet of the water-balance tables is presented in the following paragraphs.

The basic water-balance equation is:

$$\text{Inflow-Outflow} = \text{Residual.}^2$$

The inflows are:

$$\begin{aligned} Q_{us} &= \text{Flow at the upstream reach boundary.} \\ T_{rm} &= \text{Measured tributary inflow.} \\ T_{rum} &= \text{Unmeasured tributary inflow.} \end{aligned}$$

The outflows are:

$$\begin{aligned} Q_{ex} &= \text{Export flow.} \\ S_r &= \text{Change in reservoir storage.} \\ CU_d &= \text{Domestic use (includes municipal and industrial use).} \\ ET_{ag} &= \text{Agricultural evapotranspiration.} \\ ET_{pht} &= \text{Phreatophyte evapotranspiration.} \\ E &= \text{Open-water evaporation.} \\ S_a &= \text{Change in aquifer storage.} \\ Q_{ds} &= \text{Flow at the downstream reach boundary.} \end{aligned}$$

The following equation was used to perform the water balance for calendar year 2002.

$$\begin{aligned} Q_{res} &= Q_{dif} + T_{rm} + T_{rum} - Q_{ex} - S_r - CU_d - ET_{ag} - ET_{pht} - E - S_a \\ \text{Where: } Q_{dif} &= Q_{us} - Q_{ds} \end{aligned}$$

The name of each water-balance table corresponds to the upstream and downstream dam or measurement point which forms the boundaries of the reach being balanced.

---

<sup>1</sup> Not all water-balance tables have the same number of sheets. The number of sheets varies with the number of diverters balanced by each table.

<sup>2</sup> The residual may be either a positive or negative value.

The water-balance tables created for the 2002 LCRAS demonstration of technology are:

Hoover Dam to Davis Dam,  
Davis Dam to Parker Dam,  
Parker Dam to Imperial Dam, and  
Imperial Dam to Mexico<sup>3</sup>.

The following descriptions of the sheets within the water-balance tables apply to all water balance tables.

### ***Annual water-balance sheet***

This sheet, labeled Sheet A, consists of up to three pages depending upon the number of diverters within the reach. Page 1 of Sheet A displays calculations of the annual water balance, the residual, the distribution of the residual, the presumed SEE of each inflow and outflow, the distributed values, the resultant SEE of each distributed value, and the resultant values of agricultural and domestic CU and phreatophyte WU. The final annual values of agricultural ET and domestic use are the agricultural and domestic CU within the reach. The final annual value of phreatophyte ET is the final estimate of phreatophyte WU within the reach.

At the top of page 1 of Sheet A, the annual values for the upstream and downstream flows of the reach are shown ( $Q_{us}$  and  $Q_{ds}$ ), along with the calculation of  $Q_{dif}$  ( $Q_{us}-Q_{ds}$ ).

Shown next on page 1 of Sheet A is the calculation of the SEE (in acre-feet) and variance (in acre-feet squared) of reservoir contents within the reach, or other parts of the water balance where the SEE, in acre-feet, cannot be calculated simply as a presumed SEE, in percent, times the inflow or outflow value in acre-feet.

Shown next, on page 1 of Sheet A, is the water balance and the distribution of the residual. The values in the column labeled “Undistributed Annual Values” are the estimates of inflow and outflow used in the water balance.

The values in the column labeled “SEE in %” are the presumed SEE, in percent, of each inflow and outflow of the water balance. These percentage values are used to calculate the SEE in acre-feet, or are the resultant SEE in percentage from calculations on previous lines which yield the SEE in acre-feet. N/A (not applicable) in this column indicates that the SEE, in terms of percent, has no meaning.

---

<sup>3</sup> This reach includes all flows to Mexico, including the deliveries at the Northerly International Boundary and the Land Boundary near San Luis, Arizona, and underflow that crosses into Mexico from Arizona.

The values in the column labeled “SEE in Acre-Feet” are the SEE values in acre-feet, and the values in the column labeled “Variance in Acre-Feet^2” are the variance values (SEE squared) of each inflow and outflow of the water balance in acre-feet squared.

The values in the column labeled “Distributed Residual” are the amount of the residual distributed to each inflow and outflow of the water balance in acre-feet, and the values in the column labeled “Distributed Annual Value” are the final values of the inflow and outflow values in acre-feet. The final value of agricultural ET is agricultural CU, the final value of domestic use is domestic CU, and the final value of phreatophyte ET is phreatophyte WU.

The columns labeled “SEE of Distributed Annual Values”, “Percent”, or “Acre-Feet” display the SEE of each of the resultant inflow and outflow values of the water balance after the residual has been distributed. Comparing the value in the column labeled, “SEE of Distributed Annual Values”, “Acre-Feet” with the value in the column labeled “SEE in Acre-Feet”, or comparing the value in the column labeled, “SEE of Distributed Annual Values”, “Percent” with the value in the column labeled “SEE in %”, quantifies the improvement in the SEE of the water-balance inflow or outflow that results from distributing the residual.

The portion of the residual distributed to each inflow and outflow of the water balance is calculated as shown in the following equation.

$$R_D = F^2_{\text{inflow or outflow}} \div F^2_{\text{sum of inflows and outflows}} * R$$

Where:

- $R_D$  = The portion of the residual distributed to each inflow or outflow in acre-feet (column labeled “Distributed Residual”),
- $F^2_{\text{inflow or outflow}}$  = the variance of each inflow or outflow of the water balance in acre-feet squared,
- $F^2_{\text{sum of inflows and outflows}}$  = the sum of the variances of all inflows and outflows of the water balance in acre-feet squared and,
- $R$  = the value of the residual from the water balance, in acre-feet.

Distributed annual values are calculated by summing the initial estimate (undistributed annual value) and the portion of the residual distributed to each inflow or outflow (distributed residual).

As an example, the following equation is used to calculate agricultural consumptive use.

$$\text{Agricultural CU} = \text{Agricultural ET} + \text{DR}_{\text{ag ET}}$$

Where:

Agricultural CU = Agricultural Consumptive Use,  
Agricultural ET = Agricultural Evapotranspiration and,  
 $R_{D, \text{ag ET}}$  = the portion of the residual from the water balance distributed to Agricultural ET (column labeled “Distributed Residual” for the line labeled “Agricultural Evapotranspiration [ETag]”).

There are two important check sums on Sheet A that should be observed,

1. The sum of the values in the column labeled “Distributed Residual”, should be equal to the residual of the water balance displayed at the bottom of the column labeled “Undistributed Annual Value” and,
2. The value in the column labeled “Distributed Annual Value” for the line labeled “Residual” should be zero (or some very small number that results from rounding); this value is the residual of the water balance when calculated using the distributed annual values (final estimates of inflows and outflows).

Agricultural and phreatophyte ET, and the estimate of domestic use; and agricultural and domestic CU and the final value of phreatophyte WU for each diverter within the reach can be found at the bottom of page 1 of Sheet A in the Hoover Dam to Davis Dam water-balance table, page 2 of Sheet A in the Davis Dam to Parker Dam and the Parker Dam to Imperial Dam water-balance tables, and pages two and three of Sheet A in the Imperial Dam to Mexico water-balance table.

The values in the columns with the following labels:

Agricultural ET,  
Phreatophyte ET and,  
Undistributed Domestic Use,

are the agricultural and phreatophyte ET and estimates of domestic use.

The values in the columns with the following labels:

Agricultural CU,  
Phreatophyte WU,  
Domestic CU

are the agricultural and domestic CU and final estimate of phreatophyte WU for each diverter in the reach as identified in the column labeled “Diverter.”

The agricultural CU of each diverter is calculated as follows:

Agricultural CU (diverter) = Agricultural ET (diverter) ÷ Agricultural ET (sum of all diverters within the reach) \* the sum of Agricultural CU (distributed annual values of agricultural ET) for all diverters in the reach.

The domestic CU of each diverter is calculated as follows:

Domestic CU (diverter) = Estimate of Domestic Use (diverter) ÷ estimate of Domestic Use (sum of all diverters within the reach) \* the sum of Domestic CU (distributed annual values of the estimate of Domestic Use) for all diverters in the reach.

The phreatophyte WU of each diverter is calculated as follows:

Phreatophyte WU (diverter) = Phreatophyte ET (diverter) ÷ Phreatophyte ET (sum of all diverters within the reach) \* the sum of Phreatophyte WU (distributed annual values of Phreatophyte ET) for all diverters in the reach.

For example, the following equation would be used to calculate the agricultural CU of a diverter named diverter 1.

$$\text{Agricultural CU}_{\text{diverter 1}} = \text{Agricultural ET}_{\text{diverter 1}} \div \text{Sum of Agricultural ET}_{\text{all diverters}} * \text{Sum of Agricultural CU}_{\text{all diverters}}$$

Check totals can be found at the bottom of each column that describes results by diverter. These check totals should be reviewed as follows:

The total of the column labeled “Agricultural ET” should be equal to the Agricultural ET ( $ET_{ag}$ ) value in the column labeled “Undistributed Annual Value” in the water balance on page 1 of Sheet A.

The total of the column labeled “Agricultural CU” should be equal to the Agricultural ET ( $ET_{ag}$ ) value in the column labeled “Distributed Annual Value” in the water balance on page 1 of Sheet A.

The total of the column labeled “Phreatophyte ET” should be equal to the Phreatophyte Evapotranspiration ( $ET_{phl}$ ) value in the column labeled “Undistributed Annual Value” in the water balance on page 1 of Sheet A.

The total of the column labeled “Phreatophyte WU” should be equal to the Phreatophyte Evapotranspiration ( $ET_{phl}$ ) value in the column labeled “Distributed Annual Value” in the water balance on page 1 of Sheet A.

The total of the column labeled “Undistributed Domestic Use” should be equal to the Domestic, Municipal, & Industrial Use ( $CU_d$ ) value in the column labeled, “Undistributed Annual Value”, in the water balance on page 1 of Sheet A.

The total of the column labeled “Domestic CU” should be equal to the Domestic, Municipal, & Industrial Use ( $CU_d$ ) value in the column labeled “Distributed Annual Value” in the water balance on page 1 of Sheet A.

### ***Monthly water-balance sheet***

This sheet, labeled Sheet B, displays calculations of the water balance on a monthly basis. The values are from the sheets labeled C through H.

### ***$Q_{us}$ and $T_{rm}$ and $T_{rum}$ inflow components sheet***

This sheet, labeled Sheet C, displays calculations of  $Q_{us}$ ,  $T_{rm}$ , and  $T_{rum}$ . Monthly flows from stations used to calculate  $Q_{us}$  (flow entering the reach at the upstream boundary) are summed to produce the annual  $Q_{us}$ . Reclamation uses data from the Geological Survey, Arizona database and acoustic velocity meters (AVMs) operated by Reclamation in these calculations.

$T_{rm}$  (measured tributary inflow) is inflow from the Bill Williams and Gila Rivers.  $T_{rum}$  (unmeasured tributary inflow) is unmeasured runoff, unmeasured runoff in tributary streams, and ground-water discharge. The source of data is page 46 of the USGS WSP 2407 or, in the case of inflow from Sacramento Valley Wash, studies done by the Arizona Department of Water Resources<sup>4</sup>.

### ***$Q_{ex}$ , $S_r$ , and $S_a$ outflow components sheet***

This sheet, labeled Sheet D, displays calculations of monthly values of  $Q_{ex}$ ,  $S_r$ , and  $S_a$ . Monthly values of each  $Q_{ex}$  (export) are summed to produce the annual  $Q_{ex}$ . Data are from the Arizona USGS database and AVMs operated by Reclamation.

A portion of the evaporation from the All American Canal (AAC) between the head works and Station 1117 (below Pilot Knob), and the Gila Gravity Main Canal (GGMC) between the head works and station 792.87 (the Wellton-Mohawk diversion) is added to the exports from these canals. An explanation of these evaporation calculations is provided in the following section entitled, “E and  $Q_{ds}$  outflow components sheet”.

$S_r$  (change in reservoir storage) is calculated by subtracting the Beginning of Month (BOM) contents from the End of Month (EOM) contents of the reservoir. The total  $S_r$  is the beginning of year contents less the end of year contents of each reservoir in the reach being balanced. Data are from the monthly accumulation sheets compiled by Reclamation.

The initial value of  $S_a$  (change in aquifer storage) is assumed to be zero.

### ***$CU_d$ outflow component sheet***

$CU_d$  (domestic use) in this report includes any use of Colorado River water that is not used by vegetation or exported from the system. Domestic use includes municipal use, industrial use, and individual household use<sup>5</sup>.  $CU_d$  is calculated in the water-balance table on Sheet E.

---

<sup>4</sup> Letter from Greg Wallace, Chief Hydrologist, Arizona Department of Water Resources to Mr. Michael Suggs, Suggs Family Properties, Re: Preliminary Review of Three-Dimensional Groundwater Flow Simulations Incorporating Geology and River, Sterling Property, dated September 4, 1997.

<sup>5</sup> While all water use on wildlife refuges is considered a domestic use, agricultural and phreatophyte water use on wildlife refuges is not included here.



Domestic uses are initially estimated by

- 1) subtracting a measured return flow from a measured diversion or,
- 2) if a measured return flow is unavailable, by applying a consumptive use factor to a measured diversion (usually 0.6) or,
- 3) if a measured diversion and a measured return flow are unavailable, by applying an annual per-capita consumptive use factor to a population (usually 0.14 acre-feet per capita if turf irrigation is not significant).

In a few cases, domestic uses are initially estimated by a method unique to the circumstances of a particular domestic user. The derivation of the consumptive use and per-capita consumptive use factors previously mentioned can be found in attachment 7 of Lower Colorado River Accounting System, Demonstration of Technology.

### ***ET<sub>ag</sub> outflow component sheet***

This sheet, labeled Sheet F, displays calculations of monthly ET<sub>ag</sub> (agricultural evapotranspiration) of each diverter. The values are totals from sheets I through AK.

Canal evaporation within the boundaries of agricultural districts, Indian reservations, and wildlife refuges is added to the crop ET to create ET<sub>ag</sub> term for each diverter as shown by the following equation.

$$ET_{ag} = ET_{crop} + \text{Canal Evaporation}$$

An explanation of these canal evaporation calculations is provided in the following section entitled, “E and Q<sub>ds</sub> outflow components sheet.” Beginning with calendar year 2002, ET from the categories labeled seasonal wetlands and moist soil units have been included in ET<sub>ag</sub> because these categories represent uses of water diverted from the mainstream.

### ***ET<sub>pht</sub> outflow components sheet***

This sheet, labeled Sheet G, displays calculations of monthly ET<sub>pht</sub> (phreatophyte evapotranspiration) of each diverter. The values are the totals from sheets I through AK.

### ***E and Q<sub>ds</sub> outflow components sheet***

This sheet, labeled Sheet H, displays calculations of monthly evaporation from the mainstream (E), evaporation from major delivery canals, and Q<sub>ds</sub> (downstream outflow of the reach). Q<sub>ds</sub> is the sum of all values that make up the downstream outflow of a reach. Data are from the Arizona USGS database and

AVMs operated by Reclamation.

#### Evaporation from the mainstream

E is the sum of evaporation from reservoirs and the open water of the river itself within the reach being balanced. Evaporation is calculated as shown by the following equation.

$$E \text{ (acre-feet)} = \text{area of open water (acres)} * [\text{Evaporation rate (inches)} - \text{precipitation (inches)}] \div 12$$

The evaporation rate is calculated as shown by the following equation.

$$\text{Evaporation rate (inches)} = \text{reference ET (inches)} * \text{evaporation coefficient (dimensionless)}.$$

Evaporation is calculated on a monthly basis. The evaporation coefficients (Jensen 1998, 2002) are specific to each reach of the Lower Colorado River. The reference ET and precipitation values are monthly totals of daily precipitation values from the ET-Rate Tables (see Appendix I, Part 1).

#### Evaporation from major delivery canals within irrigation districts Indian reservations

Evaporation from major delivery canals which serve, and ponds which are maintained by, irrigation districts, Indian reservations, and wildlife refuges or between irrigation districts, Indian reservations, and wildlife refuges and their point(s) of diversion from the mainstream, is added to the crop evapotranspiration as if an additional “crop” to create  $ET_{ag}$ . Evaporation from major delivery canals is calculated using the same basic technique previously discussed for evaporation from the mainstream except that the open-water area used in this calculation is the open-water area in the canal assigned to each irrigation district, Indian reservation, or wildlife refuge.

For calendar year 2000, Reclamation identified bank to bank canal area (in acres) by screen digitizing using 5 meter panchromatic data from the Indian Remote Sensing IRS 1-C or 1-D sensor using Arc-Info GIS software. The result is an Arc/Info polygon coverage from which Reclamation calculated the acreage of open water within each canal. For calendar year 2002, Reclamation overlaid July 21<sup>th</sup>, 2002 30-meter TM imagery onto the coverage used for calendar year 2001 to look for needed changes and improvements that could be made. This analysis identified exposed pools of water adjacent to the Gila Gravity Main Canal. The area of these pools were digitized and included in the open water area of the canal.

Major delivery canals were categorized into two groups, single user canals which provide water to a single irrigation district, Indian reservation, or wildlife refuge, and shared canals which provide water to two or more irrigation districts, Indian reservations, or wildlife refuges. An example of a single-user canal is the Colorado River Indian Reservation Main Canal and an example of a shared canal is the All

American Canal.

Evaporation from a single-user canal is added to the crop ET of the irrigation district, Indian reservation, or wildlife refuge which receives water from the canal to develop  $ET_{ag}$ . Evaporation from a shared canal is proportioned among the irrigation districts, Indian reservations, or wildlife refuges which receive water from the canal in proportion to the quantity of water delivered and the linear distance of canal through which water flows to reach each district or reservation. The amount of canal evaporation assigned to an irrigation district, Indian reservation, or wildlife refuge (entity) which receives water from a shared canal is added to the crop ET calculated for that entity to develop  $ET_{ag}$ .

The proportion of evaporation from a shared canal assigned to each entity which receives water from the canal begins by calculating the proportionate use of the canal as follows,

1. calculate the average distance each diversion point for each entity is from the canal head works (these values have units of miles),
2. weight the distances calculated in 1 by the diversion at each diversion point for each entity (these values have units of miles),
3. multiply the value calculated in 2 by the total diversion of each entity (these values have units of acre-foot miles),
4. divide the acre-foot mile values for each entity by the sum of acre-foot mile values for all entities which receive water from the canal (these values are the proportionate use of the canal which can be expressed as fractions or percentages).

The proportionate use of the canal, from the calculations previously described, is used to proportion the open-water area of the shared canal among the irrigation district, Indian reservation, or wildlife refuge which received water from the canal. The open-water area assigned to each irrigation district, Indian reservation, or wildlife refuge is calculated as the proportionate use of the shared canal times the total open-water area of the canal.

Once the proportionate share of the open-water area of the shared canal has been assigned to each irrigation district, Indian reservation, or wildlife refuge, the evaporation assigned to each irrigation district, Indian reservation, or wildlife refuge is calculated on Sheet H of the water balance tables, using the technique previously discussed for evaporation from the mainstream substituting the open-water area assigned to each irrigation district, Indian reservation, or wildlife refuge.

### ***Diverter ET sheets***

These sheets, labeled sheets I-AK, consist of five pages each. Each sheet displays the calculations of monthly Total Agricultural ET ( $ET_{ag}$ ), on-district open-water evaporation, and crop and phreatophyte ET values for a single diverter. Therefore, the number of sheets varies with the number of diverters within each reach. The totals for each diverter are used on the  $ET_{ag}$  outflow sheet (Sheet F) and the  $ET_{pht}$  outflow sheet (Sheet G).

The first page of the Diverter ET sheet displays the monthly and annual totals of agricultural and phreatophyte ET for the diverter (lines labeled “Total Agricultural ET” and “Total Phreatophyte ET” respectively) and the monthly and annual ET of each crop group. The second page displays the monthly and annual ET of each phreatophyte group. ET is calculated as:

$$ET_{\text{crop/phreatophyte group}} (\text{acre-feet}) = ET \text{ rate}_{\text{crop/phreatophyte group}} (\text{feet}) * \text{acres}_{\text{crop/phreatophyte group}}$$

The third and fourth pages of the Diverter ET sheets contain the number of acres occupied by each crop and phreatophyte group. These acreages are determined using remote sensing/GIS procedures and onsite inspection performed by Reclamation. The fifth sheet stores the ET rate values from the appropriate ET-Rate Table<sup>6</sup>.

---

<sup>6</sup> The ET-Rate tables calculate the evapotranspiration rate (in feet) of each crop and phreatophyte group based upon reference ET calculated from data collected by AZMET and CIMIS stations. For a more complete description, see Part 1 of this appendix.

# BIBLIOGRAPHY

- Jensen 1998, "Coefficients for Vegetative Evapotranspiration and Open Water Evaporation for the Lower Colorado River Accounting System" October 1998, Marvin E. Jensen, Consultant, 1207 Springwood Drive, Fort Collins, CO 80525-2850 (available from the Bureau of Reclamation Boulder Canyon Operations Office in Boulder City, Nevada).
- Jensen 2002, "Coefficients for Vegetative Evapotranspiration and Open Water Evaporation for the Lower Colorado River Accounting System (LCRAS) Addendum to the 1998 Report Prepared for the Bureau of Reclamation" April 2002, Marvin E. Jensen, Consultant, 1207 Springwood Drive, Fort Collins, CO 80525-2850 (available from the Bureau of Reclamation Boulder Canyon Operations Office in Boulder City, Nevada).
- WSP-2407, "An Accounting System for Water and Consumptive Use Along the Colorado River, Hoover Dam to Mexico" By Sandra Owen-Joyce and Lee H. Raymond, United States Geological Survey Water-Supply Paper 2407.

# Hoover Dam to Davis Dam

## Water-Balance Table

<b>2002 LCRAS</b>	<b>Sheet A</b>			<b>2002</b>	<b>ANNUAL WATER BALANCE</b>				
Hoover Dam to Davis Dam Water Balance Table									
(This sheet calculates the water balance on an annual basis.)									
(All values in acre-feet except where noted)									
			SEE in	Variance in					
<b>Calculations for Qdf (Qus - Qds) and SEE for Qdf:</b>		SEE in %	Acre-Feet	Acre-Feet^2					
Flow @ Upstream Boundary (Qus)	10,447,200	1.40%	146,261	21,392,280,121					
Flow @ Downstream Boundary (Qds)	10,819,800	2.20%	238,036	56,661,137,296					
Difference (Qdf)	(372,600)	-74.98%	279,380	78,053,417,417					
<b>Calculations for Lake Mohave SEE:</b>						Contents at	Contents at	SEE in	Variance in
	Contents	Elevation (ft)	SEE (ft)	Elev. +SEE	Elev.-SEE	(ELEV.+SEE)	(Elev.-SEE)	Acre-Feet	Acre-Feet^2
Beginning of year	1,654,500	641.37	0.025	641.395	641.345	1,655,050	1,653,700	1,350	1,822,500
End of year	1,678,800	642.27	0.025	642.295	642.245	1,679,450	1,678,100	1,350	1,822,500
Change	24,300	0.90						1,909	3645000
<b>Water Balance:</b>	Undistributed						Distributed	SEE of	Distributed
	Annual		SEE in	Variance in	Distributed	Percent of	Annual	Annual	Values
	Value	SEE in %	Acre-Feet	Acre-Feet^2	Residual	Residual	Value	Percent	Acre-Feet
Difference (Qdf)	(372,600)		279,380	78,053,184,400	(526,421)	99.90%	153,821	5.75%	8,842
<b>Inflows:</b>									
Measured Tributary Inflow (Trm)	0	0.00%	0	0	0	0.00%	0	-----	0
Unmeasured Tributary Inflow (Trum)	6,480	30.00%	1,944	3,779,136	(25)	0.00%	6,505	29.88%	1,944
<b>Outflows:</b>									
Export Flow (Qex)	0	0.00%	0	0	0	0.00%	0	-----	0
Change in Reservoir Storage (Sr)	24,300	7.86%	1,909	3,644,281	(25)	0.00%	24,275	7.86%	1,909
Change in Aquifer Storage (Sa)	0	N/A	5,000	25,000,000	(169)	0.03%	(169)	2957.99%	4,999
Domestic,Municipal&Industrial Use (CUd)	383	2.00%	8	64	0	0.00%	383	2.09%	8
Agricultural Evapotranspiration (ETag)	0	0	0	0	0	0.00%	0	-----	0
Phreatophyte Evapotranspiration (ETpht)	742	5.00%	37	1,369	0	0.00%	742	4.99%	37
Open-Water Evaporation (E)	135,404	5.00%	6,770	45,832,900	(309)	0.06%	135,095	5.01%	6,768
Residual:	(526,949)						0		12,506
Residual as a Percentage of Qus:	-5.0%		Total:	78,131,442,150	(528)	99.99%			
					Undistributed				
<b>Diverter</b>	Agricultural ET	Agricultural CU	Phreatophyte ET	Phreatophyte CU	Domestic Use	Domestic CU			
Lake Mead NRA, AZ	0	0	547	547	0	0			
Lake Mead NRA, NV	0	0	194	194	0	0			
Cottonwood Cove, NV	0	0	0	0	186	186			
Katherines Landing/Willow Beach, AZ	0	0	0	0	193	193			
LCRD Project - Davis Dam, AZ (1)	0	0	0	0	0	0			
McAlister Housing Subdivision, AZ	0	0	0	0	3	3			
Check Totals	0	0	741	741	383	382			

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



2002 LCRAS	Sheet I, Page 2 of 5			2002		TOTAL DIVERTER ET							
Hoover Dam to Davis Dam Water Balance Table													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Lake Mead NRA, AZ													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	19	27	26	17	18	22	20	19	15	11	16	10	218
Sc-low	5	7	9	18	29	38	35	33	26	14	8	2	222
Sc-high	0	0	1	2	2	3	3	3	2	1	1	0	17
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	2	3	5	8	12	14	13	13	10	6	4	1	90

[illegible]



2002 LCRAS	Sheet I, Page 5 of 5			2002 TOTAL DIVERTER ET												
Hoover Dam to Davis Dam Water Balance Table				(Sheet to calculate ET for Lake Mead National Recreation Area [NRA], AZ)												
Monthly ET values, inches (from Fmarea01.xlw)																
	January	February	March	April	May	June	July	August	September	October	November	December	Total			
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90			
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30			
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56			
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34			
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10			
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38			
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12			
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72			
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98			
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77			
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18			
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12			
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87			
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48			
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51			
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59			
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17			
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13			
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93			
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90			
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30			
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02			
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49			
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48			
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99			
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37			
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95			
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58			
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76			
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83			
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28			
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64			
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64			
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21			
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84			
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87			
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97			
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41			
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69			
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97			
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74			
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02			
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07			



2002 LCRAS	Sheet J, Page 2 of 5				2002	TOTAL DIVERTER ET									
Hoover Dam to Davis Dam Water Balance Table															
	January	February	March	April	May	June	July	August	September	October	November	December	Total		
Lake Mead NRA, NV															
Monthly ET values															
Marsh	1	1	3	6	7	8	7	7	5	2	1	0	49		
Barren	2	3	3	2	2	3	2	2	2	1	2	1	26		
Sc-low	2	3	4	8	13	17	16	15	11	6	3	1	99		
Sc-high	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0		
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	0		
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0		
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0		
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0		
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0		
Low Veg	0	1	1	2	3	3	3	3	2	1	1	0	20		

[illegible]

2002 LCRAS	Sheet J, Page 4 of 5		2002 TOTAL DIVERTER ET									
Hoover Dam to Davis Dam Water Balance Table												
(Sheet to calculate ET for Lake Mead National Recreation Area [NRA], NV)												
	January	February	March	April	May	June	July	August	September	October	November	December
Lake Mead NRA, NV Acreages (acres)												
Total Phreatophyte Acres	57	57	57	57	57	57	57	57	57	57	57	57
Marsh	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19
Barren	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25	23.25
Sc-low	20.98	20.98	20.98	20.98	20.98	20.98	20.98	20.98	20.98	20.98	20.98	20.98
Sc-high	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0
Aw	0	0	0	0	0	0	0	0	0	0	0	0
Cw	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50



2002 LCRAS	Sheet J , Page 5 of 5			2002 TOTAL DIVERTER ET										
Hoover Dam to Davis Dam Water Balance Table				(Sheet to calculate ET for Lake Mead National Recreation Area [NRA], NV)										
Monthly ET values, inches (from Fmarea01.xlw)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90	
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30	
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56	
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34	
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10	
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38	
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12	
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72	
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98	
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77	
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18	
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12	
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87	
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48	
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51	
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59	
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17	
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13	
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93	
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90	
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30	
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02	
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49	
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48	
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99	
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37	
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95	
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58	
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76	
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83	
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28	
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64	
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64	
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21	
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84	
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87	
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97	
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41	
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69	
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97	
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74	
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02	
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07	

Davis Dam to  
Parker Dam  
Water-Balance  
Table

2002 LCRAS	Sheet A, Page 1 of 2		2002 ANNUAL WATER BALANCE							
Davis Dam to Parker Dam Water Balance Table										
(This sheet calculates the water balance on an annual basis.)										
(All values in acre-feet except where noted)										
Calculations for Qdf (Qus - Qds) and SEE for Qdf:			SEE in	Variance in						
		SEE in %	Acre-Feet	Acre-Feet^2						
Flow @ Upstream Boundary (Qus)	10,819,800	2.20%	238,036	56,661,137,296						
Flow @ Downstream Boundary (Qds)	7,565,400	2.20%	166,439	27,701,940,721						
Difference (Qdf)	3,254,400	8.92%	290,453							
Calculaions for Lake Havasu SEE:						Contents at	Contents at	SEE in	Variance in	
	Contents	Elevation (ft)	SEE (ft)	Elev.+SEE	Elev.-SEE	Elev.+SEE	Elev.-SEE	Acre-Feet	Acre-Feet^2	
Beginning of year	551,900	446.50	0.025	446.525	446.475	552,150	551,250	900	810,000	
End of year	546,700	446.21	0.025	446.235	446.185	547,000	546,200	800	640,000	
Change	(5,200)	-0.29						1,204		
Calculation of SEE for Bill Williams River inflow:				Variance in						
	Value (AF)	SEE in %	SEE in Acre-Feet	Acre-Feet^2						
Flow blw Alamo Dam	19,090	3.00%	573	328,329						
Unmeasured runoff	4,000	30.00%	1,200	1,440,000						
Ground-water discharge	4,000	30.00%	1,200	1,440,000						
ET - Agriculture	1,328	5.00%	66	4,356						
ET - phreatophytes	23,539	5.00%	1,177	1,385,329						
Evaporation	0	5.00%	0	0						
For total annual inflow from the Bill williams River see sheet C.			2,144							
Water Balance:	Undistributed						Distributed	SEE of Distributed		
	Annual		SEE in	Variance in	Distributed	Percent of	Annual	Annual Values		
	Value	SEE in %	Acre-Feet	Acre-Feet^2	Residual	Residual	Value	Percent	Acre-Feet	
Difference (Qdf)	3,254,400	8.92%	290,453	84,362,945,209	42,620	95.96%	3,211,780	1.82%	58,364	
Inflows:										
Measured Tributary Inflow (Trm)	5,702	37.60%	2,144	4,596,736	2	0.00%	5,700	37.61%	2,144	
Unmeasured Tributary Inflow (Trum)	36,290	30.00%	10,887	118,526,769	60	0.14%	36,230	30.03%	10,880	
Outflow										
Export Flow (Qex)	2,819,589	2.00%	56,392	3,180,057,664	1,607	3.62%	2,821,196	1.96%	55,363	
Change in Reservoir Storage (Sr)	(5,200)	-23.15%	1,204	1,449,616	1	0.00%	(5,199)	23.16%	1,204	
Change in Aquifer Storage (Sa)	0	N/A	10,000	100,000,000	51	0.11%	51	19596.08%	9,994	
Domestic,Municipal, & Industrial Use (CUd)	44,364	2.00%	887	786,769	0	0.00%	44,364	2.00%	887	
Agricultural Evapotranspiration (ETag)	76,715	5.00%	3,836	14,714,896	7	0.02%	76,722	5.00%	3,836	
Phreatophyte Evapotranspiration (ETpht)	187,727	5.00%	9,386	88,096,996	45	0.10%	187,772	5.00%	9,381	
Open-Water Evaporation (E)	128,784	5.00%	6,439	41,460,721	21	0.05%	128,805	5.00%	6,437	
Residual	44,413				44,414		(1)		82,708	
Residual as a percentage of Qus:	0.41%		Total:	87,912,635,376		100.00%				

2002 LCRAS	Sheet A, Page 2 of 2		Final Results by Diverter						
Davis Dam to Parker Dam Water Balance Table									
					Undistributed		Undistributed	Distributed	
Diverter	Agricultural ET	Agricultural CU	Phreatophyte ET	Phreatophyte CU	Domestic Use	Domestic CU	Export	Export	
Bill Williams NWR, AZ	0	0	11,188	11,191					
Chemehuevi IR, CA	205	205	38	38					
Fort Mojave IR, AZ	39,292	39,296	33,979	33,987					
Fort Mojave IR, CA	11,010	11,011	4,923	4,924					
Fort Mojave IR, NV	2,170	2,170	7,160	7,162					
Havasus NWR, AZ	0	0	51,788	51,800					
Havasus NWR, CA	0	0	5,822	5,823					
Havasus State Park, AZ	0	0	3,004	3,005					
Lake Mead NRA, AZ	0	0	348	348					
Lake Mead NRA, NV	0	0	102	102					
Moabi Park, CA	0	0	201	201					
Mojave Valley IDD, AZ	22,588	22,590	33,478	33,486					
State of AZ	0	0	3,816	3,817					
State of CA	1,450	1,450	21,041	21,046					
State of NV	0	0	10,837	10,840					
Bullhead City, AZ (Pumped from Wells)					5,084	5,084			
Mohave Valley IDD Domestic, AZ					2,980	2,980			
Big Bend Water District, NV (1)					2,355	2,355			
Southern CA Edison, NV (2)					12,297	12,297			
Golden Shores Water Cons. Dist., AZ (3)					324	324			
Arizona-American Water Co					442	442			
Needles, CA					1,425	1,425			
Havasus Water Company, CA					36	36			
Mohave Water Conservation District, AZ					418	418			
Lake Havasu City & MCWA, AZ (4)					9,493	9,493			
Sportsman's Park, NV (5)					2	2			
Boy Scouts, NV					0	0			
Southern CA Gas, CA					38	38			
BLM-Black Meadow, CA					91	91			
BLM Permittees, AZ (6)					136	136			
Mohave Co Parks (Davis Dam Camp), AZ					61	61			
Ft Mojave Indian Reservation, NV (Avi) (7)					789	789			
Crystal Beach Water Cons. District, AZ					54	54			
Ft Mojave Indian Reservation, AZ (8)					4,106	4,106			
Ft Mojave Indian Reservation, CA (8)					42	42			
AZ State Parks-Windsor Beach, AZ(9)					21	21			
South Point Power Plant, AZ					3,996	3,996			
Pacific Gas & Electric, CA					0	0			
Topock, AZ					126	126			
Chemehuevi, IR, CA					48	48			
MWD(1)							1,237,994	1,238,700	
CAP(2)							1,581,595	1,582,496	
Check Totals	76.715	76.722	187.725	187.770	44,364	44,364			

[illegible]

[illegible]

2002 LCRAS			Sheet C, Page 2 of 2		2002	Qus, and Trm and Trum	INFLOW COMPONENTS								
Davis Dam to Parker Dam Water Balance Table															
(A mini water-balance is created for the Bill Williams River to calculate the flow arriving at Lake Havasu)															
(*Data based on Table 10, pg. 45, USGS Water Supply Paper 2407)															
			January	February	March	April	May	June	July	August	September	October	November	December	Total
(All values in acre-feet)															
Inflow:			from USGS Arizona District database (see data file dav2park.xls)												
Flow below Alamo Dam	1640	1440	1380	2040	2460	2380	2080	1600	1540	1280	574	676	19,090		
*Unmeasured average annual runoff	333	333	333	333	333	333	333	333	333	333	333	333	4,000		
*Ground-water discharge	333	333	333	333	333	333	333	333	333	333	333	333	4,000		
Total	2307	2107	2047	2707	3127	3047	2747	2267	2207	1947	1241	1343	27,090		
Outflow:															
ET - crops**	10	19	19	58	92	208	297	338	232	34	13	8	1,328		
ET - phreatophytes**	755	1107	1382	1993	2855	3634	3364	3215	2459	1445	991	340	23,539		
Evaporation ***	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	765	1125	1401	2051	2948	3842	3661	3553	2690	1479	1005	348	24,867		
Bill Williams River (zero if negative)	1542	981	646	655	179	0	0	0	0	468	236	994	5,702		
** Based on values calculated in Sheet I															
*** Based on values calculated in Sheet H, includes factor for effective precipitation															

2002 LCRAS			Sheet D				2002	Qex, Sr, and Sa OUTFLOW COMPONENTS										
Davis Dam to Parker Dam Water Balance Table																		
(Sheet to calculate outflow components Qex, Sr, and Sa)																		
		January	February	March	April	May	June	July	August	September	October	November	December	Total				
(All values in acre-feet)																		
Qex, Flow Exported																		
Total		263,962	270,512	305,571	291,590	295,624	266,814	196,475	199,432	176,116	98,405	216,514	238,574	2,819,589				
Station		from 2001 MWD & CAP Pumpage Reports in USBR Decree Accounting Records																
MWD(1)		107,362	97,886	109,144	105,296	109,403	105,961	108,551	111,154	105,984	58,319	108,788	110,146	1,237,994				
CAP(2)		156,600	172,626	196,427	186,294	186,221	160,853	87,924	88,278	70,132	40,086	107,726	128,428	1,581,595				
-----		0	0	0	0	0	0	0	0	0	0	0	0	0				
(1) - From MWD/USBR Operations Records, includes return flow credit for measured regulatory reservoirs seepage returns less estimated amount of phreatophyte use																		
(2) - From CAWCD Operations Records																		
Sr, Change in Reservoir Storage (End of Month [EOM] contents [reported 12 midnight last day of month] - Beginning of Month [BOM] contents [reported 12 midnight last day month prior])																		
Total		(2,300)	10,900	29,900	(6,600)	11,200	(12,300)	(21,500)	(1,600)	5,200	19,100	(25,000)	(12,200)	(5,200)				
Reservoir																		
Havasu		from USGS Arizona/California District databases & USBR Operations Records (see data file dav2park.xls)																
EOM		549,600	560,500	590,400	583,800	595,000	582,700	561,200	559,600	564,800	583,900	558,900	546,700					
BOM		551,900	549,600	560,500	590,400	583,800	595,000	582,700	561,200	559,600	564,800	583,900	558,900					
Change		(2,300)	10,900	29,900	(6,600)	11,200	(12,300)	(21,500)	(1,600)	5,200	19,100	(25,000)	(12,200)	(5,200)				
-----																		
EOM		0	0	0	0	0	0	0	0	0	0	0	0	0				
BOM		0	0	0	0	0	0	0	0	0	0	0	0	0				
Change		0	0	0	0	0	0	0	0	0	0	0	0	0				
Sa, Change in Aquifer Storage																		
Total		0	0	0	0	0	0	0	0	0	0	0	0	0				
Station		pages 50, USGS Water Supply Paper 2407																
-----		0	0	0	0	0	0	0	0	0	0	0	0	0				
-----		0	0	0	0	0	0	0	0	0	0	0	0	0				
-----		0	0	0	0	0	0	0	0	0	0	0	0	0				





2002 LCRAS		Sheet F			2002 ETag OUTFLOW COMPONENT									
Davis Dam to Parker Dam Water Balance Table														
(Sheet to calculate outflow component ETcrop)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
(All values in acre-feet)														
ETag, Agricultural Evapotranspiration														
Total	2373	4452	4822	7217	8598	10836	11378	10786	8285	3014	3060	1893	76,715	
Diverter *														
Bill Williams NWR, AZ	0	0	0	0	0	0	0	0	0	0	0	0	0	
Chemehuevi IR, CA	9	16	17	22	22	24	23	24	20	10	11	7	205	
Fort Mojave IR, AZ	1137	2141	2401	3750	4563	5758	5988	5474	4173	1491	1493	923	39,292	
Fort Mojave IR, CA	287	523	564	849	1117	1596	1821	1864	1378	399	385	227	11,010	
Fort Mojave IR, NV	73	142	143	213	255	291	281	282	233	96	99	62	2,170	
Havasü NWR, AZ	0	0	0	0	0	0	0	0	0	0	0	0	0	
Havasü NWR, CA	0	0	0	0	0	0	0	0	0	0	0	0	0	
Havasü State Park, AZ	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lake Mead NRA, AZ	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lake Mead NRA, NV	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moabi Park, CA	0	0	0	0	0	0	0	0	0	0	0	0	0	
Mojave Valley IDD, AZ	811	1522	1589	2236	2481	2989	3091	2965	2332	946	997	628	22,588	
State of AZ	0	0	0	0	0	0	0	0	0	0	0	0	0	
State of CA	56	108	109	146	159	178	173	177	149	72	75	47	1,450	
State of NV	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
* Sheet I, Bill Williams River, AZ is not included here, it is used in Sheet C														

[illegible]

2002 LCRAS			Sheet H, Page 1 of 2			2002 E and Qds OUTFLOW COMPONENTS								
Davis Dam to Parker Dam Water Balance Table														
(Sheet to calculate outflow components E and Qds)														
		January	February	March	April	May	June	July	August	September	October	November	December	Total
(All values in acre-feet)														
Qds, Flow at the Downstream Boundary														
Total		398300	498600	696900	809900	788700	816000	887800	745400	620300	538900	419300	345300	7,565,400
Station		from USGS Arizona District database (see data file dav2park.xls)												
Parker Dam		398300	498600	696900	809900	788700	816000	887800	745400	620300	538900	419300	345300	7,565,400
-----		0	0	0	0	0	0	0	0	0	0	0	0	0
E, Open-Water Evaporation (Surface Evaporation= acres X ((evaporation - precipitation)/12))														
Total		6231	8771	10913	14109	15435	16905	14907	13377	9504	7105	8223	3305	128,784
Lake														
Colorado River	acres	20944	20944	20944	20944	20944	20944	20944	20944	20944	20944	20944	20944	
	Ac-ft	5419	7628	9490	12270	13424	14702	12964	11633	8265	6179	7151	2874	111,999
Topock Marsh	acres	3139	3139	3139	3139	3139	3139	3139	3139	3139	3139	3139	3139	
	Ac-ft	812	1143	1422	1839	2012	2203	1943	1744	1239	926	1072	431	16,786
-----	acres	0	0	0	0	0	0	0	0	0	0	0	0	
	Ac-ft	0	0	0	0	0	0	0	0	0	0	0	0	0
Bill Williams	acres	0	0	0	0	0	0	0	0	0	0	0	0	
	Ac-ft*	0	0	0	0	0	0	0	0	0	0	0	0	0
* - These values used in Sheet C														
Evaporation coefficient, monthly (Jensen, 2002)														
		0.89	0.86	0.87	0.95	0.93	0.85	0.81	0.76	0.73	0.78	0.88	0.81	
ETo, inches (THESE VALUES FROM ANOTHER WORKSHEET)														
Mohave AZMET		3.50	5.14	6.25	7.40	8.27	9.91	9.17	8.77	6.72	4.68	4.69	2.07	76.57
Evaporation, inches (Evaporation = ETo X Evaporation coefficient)														
Mohave Area		3.12	4.42	5.44	7.03	7.69	8.42	7.43	6.67	4.91	3.65	4.13	1.68	64.57
Precipitation, inches (THESE VALUES FROM ANOTHER WORKSHEET)														
Ft. Mohave Area (avg.)		0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.11	0.03	0.03	0.40

2002 LCRAS				Sheet H, Page 2 of 2		2002 E and Qds OUTFLOW COMPONENTS										
Davis Dam to Parker Dam Water Balance Table																
(All values in acre-feet)				January	February	March	April	May	June	July	August	September	October	November	December	Total
Open-Water Evaporation Within District and Shared Canal Evaporation (1)																
[added to Diverters Ag ET; Surface Evaporation = acres X ((evaporation - precipitation/12))]																
District Name	acres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(see Sheet *)	Ac-ft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
District Name	acres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(see Sheet *)	Ac-ft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(1) - Open water surface area of larger canals, distribution laterals, and storage ponds distinguishable on 10 meter IRS imagery																

[illegible]

[illegible]

[illegible]



[illegible]

2002 LCRAS	Sheet I, Page 5 of 5			2002 DIVERTER ET										
Davis Dam to Parker Dam Water Balance Table			(Sheet to calculate ET for the Bill Williams River, AZ [Alamo Dam Gage to Lake Havasu])											
Monthly ET values, inches (from FMarea01.xlw)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90	
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30	
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56	
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34	
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10	
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38	
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12	
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72	
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98	
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77	
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18	
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12	
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87	
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48	
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51	
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59	
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17	
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13	
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93	
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90	
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30	
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02	
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49	
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48	
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99	
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37	
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95	
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58	
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76	
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83	
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28	
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64	
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64	
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21	
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84	
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87	
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97	
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41	
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69	
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97	
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74	
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02	
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07	

[illegible]

2002 LCRAS	Sheet J, Page 2 of 5				2002	DIVER TER ET								
Davis Dam to Parker Dam Water Balance Table														
(Sheet to calculate ET for Bill Williams River National Wildlife Refuge [NWR], AZ														
(All values in acre-feet)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Bill Williams NWR, AZ														
Monthly ET values														
Marsh	25	37	131	245	274	328	304	291	221	83	33	14	1987	
Barren	24	35	33	22	23	28	26	24	19	14	21	12	279	
Sc-low	82	120	161	320	514	679	629	601	460	258	135	29	3988	
Sc-high	19	28	45	91	140	178	165	158	121	67	34	7	1054	
Sc/ms	10	15	24	51	79	101	93	89	68	38	19	4	590	
Sc/aw	1	1	2	4	6	8	7	7	5	3	1	0	46	
Sc/ms/aw	1	2	3	6	8	11	10	10	7	5	2	0	65	
Ms-low	9	14	21	36	52	65	60	58	44	29	17	4	411	
Ms-high	3	5	8	16	23	28	26	25	19	12	8	2	174	
Ms/aw	2	2	4	8	11	14	13	12	9	6	4	1	87	
Aw	1	1	1	2	3	5	4	4	3	2	1	0	27	
Cw	37	54	92	175	257	318	294	281	215	137	80	15	1956	
Low Veg	12	18	27	47	67	82	76	73	56	36	24	5	524	

[illegible]

[illegible]

2002 LCRAS	Sheet J, Page 5 of 5			2002 DIVERTER ET										
Davis Dam to Parker Dam Water Balance Table				(Sheet to calculate ET for Bill Williams River National Wildlife Refuge [NWR], AZ)										
Monthly ET values, inches (from FMarea01.xlw)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90	
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30	
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56	
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34	
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10	
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38	
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12	
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72	
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98	
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77	
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18	
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12	
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87	
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48	
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51	
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59	
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17	
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13	
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93	
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90	
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30	
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02	
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49	
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48	
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99	
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37	
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95	
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58	
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76	
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83	
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28	
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64	
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64	
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21	
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84	
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87	
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97	
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41	
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69	
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97	
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74	
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02	
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07	

[illegible]



[illegible]

2002 LCRAS	Sheet K, Page 3 of 5				2002 DIVERTER ET													
Davis Dam to Parker Dam Water Balance Table																		
(Sheet to calculate ET for the Chemehuevi Indian Reservation [IR], CA)																		
	January	February	March	April	May	June	July	August	September	October	November	December						
Chemehuevi IR, CA																		
Acreages (acres)																		
Total Agricultural Acres	42	42	42	42	42	42	42	42	42	42	42	42						
Alfalfa-perennial	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72						
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0						
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0						
Cotton	0	0	0	0	0	0	0	0	0	0	0	0						
Small Grain	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27						
Field Grain	0	0	0	0	0	0	0	0	0	0	0	0						
Lettuce-early	0	0	0	0	0	0	0	0	0	0	0	0						
Lettuce-late	0	0	0	0	0	0	0	0	0	0	0	0						
Melons-spring	0	0	0	0	0	0	0	0	0	0	0	0						
Melons-fall	0	0	0	0	0	0	0	0	0	0	0	0						
Bermuda	0	0	0	0	0	0	0	0	0	0	0	0						
Bermuda w/ rye	0	0	0	0	0	0	0	0	0	0	0	0						
Citrus-young	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54						
Citrus-mature	0	0	0	0	0	0	0	0	0	0	0	0						
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0						
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0						
Sudan	0	0	0	0	0	0	0	0	0	0	0	0						
Legume/Solanum Veg	0	0	0	0	0	0	0	0	0	0	0	0						
Crucifers	0	0	0	0	0	0	0	0	0	0	0	0						
Dates	0	0	0	0	0	0	0	0	0	0	0	0						
Safflower	0	0	0	0	0	0	0	0	0	0	0	0						
Orchards	0	0	0	0	0	0	0	0	0	0	0	0						
Small Vegetables	0	0	0	0	0	0	0	0	0	0	0	0						
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0						
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0						
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0						
Grapes	0	0	0	0	0	0	0	0	0	0	0	0						
Herbs (Miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0						
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0						
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0						

[illegible]

2002 LCRAS	Sheet K, Page 5 of 5				2002 DIVERter ET								
Davis Dam to Parker Dam Water Balance Table				(Sheet to calculate ET for the Chemehuevi Indian Reservation [IR], CA)									
Monthly ET values, inches (from FMarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07

[illegible]

[illegible]

[illegible]

[illegible]



2002 LCRAS	Sheet L, Page 5 of 5		2002 DIVERter ET										
Davis Dam to Parker Dam Water Balance Table			(Sheet to calculate ET for the Fort Mojave Indian Reservation [IR], AZ)										
Monthly ET values, inches (from FMarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58
Moist Soil Unit	3.5	5.14	6.13	7.3	4.95	3.16	9.86	9.9	4.46	4.68	4.69	2.07	65.84
Seasonal Wetland	3.5	5.14	5.11	4.23	3.75	2.55	4.67	4.82	3.7	4.68	4.69	2.07	48.91
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07

[illegible]

[illegible]

[illegible]

[illegible]

2002 LCRAS	Sheet M, Page 5 of 5			2002 DIVERTER ET										
Davis Dam to Parker Dam Water Balance Table			(Sheet to calculate ET for the Fort Mojave Indian Reservation [IR], CA)											
Monthly ET values, inches (from FMarea01.xlw)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90	
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30	
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56	
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34	
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10	
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38	
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12	
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72	
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98	
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77	
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18	
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12	
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87	
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48	
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51	
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59	
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17	
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13	
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93	
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90	
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30	
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02	
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49	
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48	
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99	
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37	
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95	
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58	
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76	
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83	
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28	
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64	
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64	
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21	
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84	
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87	
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97	
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41	
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69	
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97	
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74	
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02	
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07	

[illegible]

2002 LCRAS	Sheet N, Page 2 of 5			2002		DIVER TER ET							
Davis Dam to Parker Dam Water Balance Table													
(Sheet to calculate ET for the Fort Mojave Indian Reservation [IR], NV)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Fort Mojave IR, NV													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	135	198	188	122	131	157	146	139	106	79	119	70	1591
Sc-low	65	95	128	253	407	539	498	477	364	205	107	23	3161
Sc-high	17	25	40	80	124	157	146	139	107	60	30	6	930
Sc/ms	12	18	29	61	96	122	113	108	82	46	23	4	714
Sc/aw	1	1	2	4	6	8	8	7	6	3	2	0	48
Sc/ms/aw	1	1	1	3	4	5	5	5	3	2	1	0	31
Ms-low	1	2	3	6	8	10	9	9	7	4	3	1	62
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	1	2	3	6	9	12	11	10	8	5	3	1	70
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	13	18	29	50	71	87	80	77	59	38	25	6	552



[illegible]

[illegible]

2002 LCRAS	Sheet N, Page 5 of 5		2002 DIVERTER ET										
Davis Dam to Parker Dam Water Balance Table		(Sheet to calculate ET for the Fort Mojave Indian Reservation [IR], NV)											
Monthly ET values, inches (from FMarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07

[illegible]

2002 LCRAS	Sheet O, Page 2 of 5			2002	DIVER TER ET								
Davis Dam to Parker Dam Water Balance Table													
(Sheet to calculate ET for the Havasu National Wildlife Refuge [NWR], AZ)													
(All values in acre-feet)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Havasu NWR, AZ													
Monthly ET values													
Marsh	176	259	910	1700	1899	2275	2105	2014	1530	574	226	100	13767
Barren	124	181	172	112	120	144	133	127	97	73	109	64	1456
Sc-low	136	200	269	534	859	1135	1050	1005	768	432	226	48	6663
Sc-high	207	303	489	987	1526	1940	1795	1717	1313	733	373	75	11458
Sc/ms	87	128	210	437	681	868	803	768	587	327	164	32	5091
Sc/aw	25	37	61	124	193	246	227	217	166	93	47	9	1447
Sc/ms/aw	23	33	59	116	177	224	208	198	152	96	52	9	1347
Ms-low	25	37	58	98	140	176	163	156	119	78	46	9	1106
Ms-high	24	35	62	120	172	209	193	185	142	91	56	11	1299
Ms/aw	63	93	160	303	433	525	486	465	356	226	134	26	3270
Aw	67	98	150	284	432	564	522	499	383	230	128	25	3383
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	34	50	79	136	192	236	218	209	160	103	68	16	1501

[illegible]

[illegible]

2002 LCRAS	Sheet O, Page 5 of 5		2002 DIVERTER ET												
Davis Dam to Parker Dam Water Balance Table			(Sheet to calculate ET for the Havasu National Wildlife Refuge [NWR], AZ)												
Monthly ET values, inches (from FMarea01.xlw)															
	January	February	March	April	May	June	July	August	September	October	November	December	Total		
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90		
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30		
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56		
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34		
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10		
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38		
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12		
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72		
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98		
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77		
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18		
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12		
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87		
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48		
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51		
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59		
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17		
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13		
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93		
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90		
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30		
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02		
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49		
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48		
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99		
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37		
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95		
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58		
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76		
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83		
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28		
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64		
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64		
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21		
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84		
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87		
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97		
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41		
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69		
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97		
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74		
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02		
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07		



[illegible]

2002 LCRAS	Sheet P, Page 2 of 5				2002	DIVERTER ET							
Davis Dam to Parker Dam Water Balance Table													
(Sheet to calculate ET for the Havasu National Wildlife Refuge [NWR], CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Havasu NWR, CA													
Monthly ET values													
Marsh	37	54	191	357	399	478	443	424	322	121	48	21	2895
Barren	35	52	49	32	34	41	38	36	28	21	31	18	414
Sc-low	20	29	40	79	127	167	155	148	113	64	33	7	982
Sc-high	8	12	20	39	61	78	72	69	53	29	15	3	458
Sc/ms	6	8	13	28	44	56	52	49	38	21	11	2	327
Sc/aw	1	1	2	5	7	9	8	8	6	3	2	0	53
Sc/ms/aw	1	2	3	7	10	13	12	11	9	5	3	1	77
Ms-low	2	3	5	9	13	16	15	14	11	7	4	1	103
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	1	1	1	3	4	5	5	4	3	2	1	0	30
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	11	16	25	44	62	76	70	67	52	33	22	5	483

2002 LCRAS	Sheet P, Page 3 of 5			2002 DIVERTER ET													
Davis Dam to Parker Dam Water Balance Table																	
(Sheet to calculate ET for the Havasu National Wildlife Refuge [NWR], CA)																	
	January	February	March	April	May	June	July	August	September	October	November	December					
Havasu NWR, CA																	
Acreages (acres)																	
Total Agricultural Acres	0	0	0	0	0	0	0	0	0	0	0	0					
Alfalfa-perennial	0	0	0	0	0	0	0	0	0	0	0	0					
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0					
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0					
Cotton	0	0	0	0	0	0	0	0	0	0	0	0					
Small Grain	0	0	0	0	0	0	0	0	0	0	0	0					
Field Grain	0	0	0	0	0	0	0	0	0	0	0	0					
Lettuce-early	0	0	0	0	0	0	0	0	0	0	0	0					
Lettuce-late	0	0	0	0	0	0	0	0	0	0	0	0					
Melons-spring	0	0	0	0	0	0	0	0	0	0	0	0					
Melons-fall	0	0	0	0	0	0	0	0	0	0	0	0					
Bermuda	0	0	0	0	0	0	0	0	0	0	0	0					
Bermuda w/ rye	0	0	0	0	0	0	0	0	0	0	0	0					
Citrus-young	0	0	0	0	0	0	0	0	0	0	0	0					
Citrus-mature	0	0	0	0	0	0	0	0	0	0	0	0					
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0					
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0					
Sudan	0	0	0	0	0	0	0	0	0	0	0	0					
Legume/Solanum Veg	0	0	0	0	0	0	0	0	0	0	0	0					
Crucifers	0	0	0	0	0	0	0	0	0	0	0	0					
Dates	0	0	0	0	0	0	0	0	0	0	0	0					
Safflower	0	0	0	0	0	0	0	0	0	0	0	0					
Orchards	0	0	0	0	0	0	0	0	0	0	0	0					
Small Vegetables	0	0	0	0	0	0	0	0	0	0	0	0					
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0					
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0					
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0					
Grapes	0	0	0	0	0	0	0	0	0	0	0	0					
Herbs (Miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0					
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0					
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0					

[illegible]

2002 LCRAS	Sheet P, Page 5 of 5			2002 DIVERTER ET									
Davis Dam to Parker Dam Water Balance Table			(Sheet to calculate ET for the Havasu National Wildlife Refuge [NWR], CA)										
Monthly ET values, inches (from FMarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07

[illegible]

2002 LCRAS	Sheet Q, Page 2 of 5			2002		DIVERTER ET							
Davis Dam to Parker Dam Water Balance Table													
(Sheet to calculate ET for the Havasu [Windsor Beach] State Park, AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Havasu State Park, AZ													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	52	76	72	47	50	60	56	53	41	30	46	27	611
Sc-low	32	47	63	125	200	265	245	235	179	101	53	11	1556
Sc-high	3	5	7	15	23	29	27	26	20	11	6	1	174
Sc/ms	3	4	6	13	20	26	24	23	17	10	5	1	150
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	1	1	1	2	3	4	3	3	3	2	1	0	23
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	11	16	26	44	63	77	71	68	52	34	22	5	490

2002 LCRAS	Sheet Q, Page 3 of 5			2002 DIVERTER ET														
Davis Dam to Parker Dam Water Balance Table																		
(Sheet to calculate ET for the Havasu [Windsor Beach] State Park, AZ)																		
	January	February	March	April	May	June	July	August	September	October	November	December						
Havasus State Park, AZ																		
Acreages (acres)																		
Total Agricultural Acres	0	0	0	0	0	0	0	0	0	0	0	0						
Alfalfa-perennial	0	0	0	0	0	0	0	0	0	0	0	0						
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0						
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0						
Cotton	0	0	0	0	0	0	0	0	0	0	0	0						
Small Grain	0	0	0	0	0	0	0	0	0	0	0	0						
Field Grain	0	0	0	0	0	0	0	0	0	0	0	0						
Lettuce-early	0	0	0	0	0	0	0	0	0	0	0	0						
Lettuce-late	0	0	0	0	0	0	0	0	0	0	0	0						
Melons-spring	0	0	0	0	0	0	0	0	0	0	0	0						
Melons-fall	0	0	0	0	0	0	0	0	0	0	0	0						
Bermuda	0	0	0	0	0	0	0	0	0	0	0	0						
Bermuda w/ rye	0	0	0	0	0	0	0	0	0	0	0	0						
Citrus-young	0	0	0	0	0	0	0	0	0	0	0	0						
Citrus-mature	0	0	0	0	0	0	0	0	0	0	0	0						
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0						
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0						
Sudan	0	0	0	0	0	0	0	0	0	0	0	0						
Legume/Solanum Veg	0	0	0	0	0	0	0	0	0	0	0	0						
Crucifers	0	0	0	0	0	0	0	0	0	0	0	0						
Dates	0	0	0	0	0	0	0	0	0	0	0	0						
Safflower	0	0	0	0	0	0	0	0	0	0	0	0						
Orchards	0	0	0	0	0	0	0	0	0	0	0	0						
Small Vegetables	0	0	0	0	0	0	0	0	0	0	0	0						
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0						
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0						
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0						
Grapes	0	0	0	0	0	0	0	0	0	0	0	0						
Herbs (Miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0						
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0						
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0						



[illegible]

2002 LCRAS	Sheet Q, Page 5 of 5		2002 DIVERTER ET										
Davis Dam to Parker Dam Water Balance Table			(Sheet to calculate ET for the Havasu [Windsor Beach] State Park, AZ)										
Monthly ET values, inches (from FMarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07

[illegible]

2002 LCRAS	Sheet R, Page 2 of 5			2002	DIVERTER ET								
Davis Dam to Parker Dam Water Balance Table													
(Sheet to calculate ET for the Lake Mead National Recreation Area [NRA], AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Lake Mead NRA, AZ													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	1
Barren	5	8	8	5	5	6	6	6	4	3	5	3	64
Sc-low	2	3	4	8	13	17	16	15	12	7	3	1	102
Sc-high	0	0	1	1	2	2	2	2	2	1	0	0	14
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	1	2	3	5	7	8	8	7	6	4	2	0	53
Ms-high	0	0	1	1	2	2	2	2	2	1	1	0	15
Ms/aw	1	2	3	6	9	11	10	9	7	5	3	1	66
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	1	1	2	3	4	5	5	5	3	2	1	0	33

[illegible]

[illegible]

2002 LCRAS	Sheet R, Page 5 of 5		2002 DIVERter ET										
Davis Dam to Parker Dam Water Balance Table			(Sheet to calculate ET for the Lake Mead National Recreation Area [NRA], AZ)										
Monthly ET values, inches (from FMarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58
Moist Soil Unit	3.5	5.14	6.13	7.3	4.95	3.16	9.86	9.9	4.46	4.68	4.69	2.07	65.84
Seasonal Wetland	3.5	5.14	5.11	4.23	3.75	2.55	4.67	4.82	3.7	4.68	4.69	2.07	48.91
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07

[illegible]



2002 LCRAS	Sheet S, Page 2 of 5			2002	DIVERTER ET									
Davis Dam to Parker Dam Water Balance Table														
(Sheet to calculate ET for the Lake Mead National Recreation Area [NRA], NV)														
(All values in acre-feet)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Lake Mead NRA, NV														
Monthly ET values														
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	1	2	2	1	1	1	1	1	1	1	1	1	1	14
Sc-low	1	2	2	4	7	10	9	8	6	4	2	0	0	56
Sc-high	0	0	1	1	2	3	3	3	2	1	1	0	0	17
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	0	0	1	1	2	2	2	2	2	1	1	0	0	15

[illegible]

[illegible]

2002 LCRAS	Sheet S, Page 5 of 5		2002 DIVERTER ET										
Davis Dam to Parker Dam Water Balance Table			(Sheet to calculate ET for the Lake Mead National Recreation Area [NRA], NV)										
Monthly ET values, inches (from FMarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07

[illegible]

2002 LCRAS	Sheet T, Page 2 of 5			2002		DIVERTER ET							
Davis Dam to Parker Dam Water Balance Table													
(Sheet to calculate ET for Moabi Park, CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Moabi Park, CA													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	7	10	10	6	7	8	8	7	6	4	6	4	84
Sc-low	2	2	3	6	9	13	12	11	8	5	2	1	73
Sc-high	0	0	1	2	2	3	3	3	2	1	1	0	18
Sc/ms	0	1	1	2	3	4	3	3	3	1	1	0	22
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	0	0	0	0	0	1	0	0	0	0	0	0	3

[illegible]

[illegible]



2002 LCRAS	Sheet T, Page 5 of 5		2002 DIVERTER ET										
Davis Dam to Parker Dam Water Balance Table			(Sheet to calculate ET for Moabi Park, CA)										
Monthly ET values, inches (from FMarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07

[illegible]

[illegible]

[illegible]

[illegible]

2002 LCRAS	Sheet U, Page 5 of 5			2002 DIVERTER ET												
Davis Dam to Parker Dam Water Balance Table				(Sheet to calculate ET for Mojave Valley Irrigation and Drainage District [IDD], AZ)												
Monthly ET values, inches (from FMarea01.xlw)																
	January	February	March	April	May	June	July	August	September	October	November	December	Total			
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90			
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30			
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56			
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34			
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10			
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38			
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12			
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72			
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98			
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77			
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18			
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12			
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87			
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48			
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51			
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59			
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17			
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13			
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93			
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90			
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30			
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02			
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49			
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48			
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99			
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37			
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95			
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58			
Moist Soil Unit	3.50	5.12	6.13	7.30	4.95	3.16	9.86	9.90	4.46	4.64	4.68	2.06	65.76			
Seasonal Wetland	3.50	5.12	5.11	4.23	3.75	2.55	4.67	4.82	3.70	4.64	4.68	2.06	48.83			
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28			
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64			
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64			
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21			
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84			
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87			
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97			
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41			
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69			
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97			
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74			
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02			
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07			

[illegible]

2002 LCRAS	Sheet V, Page 2 of 5			2002 DIVERTER ET										
Davis Dam to Parker Dam Water Balance Table														
(Sheet to calculate ET for the State of Arizona [AZ])														
(All values in acre-feet)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
State of AZ														
Monthly ET values														
Marsh	1	2	7	13	14	17	16	15	11	4	2	1	103	
Barren	77	113	107	70	75	90	83	79	61	45	68	40	908	
Sc-low	41	59	80	159	255	338	312	299	228	128	67	14	1981	
Sc-high	2	3	5	11	17	22	20	19	15	8	4	1	128	
Sc/ms	3	4	7	14	23	29	27	25	19	11	5	1	168	
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	2	
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	1	
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0	
Aw	1	1	2	3	4	6	5	5	4	2	1	0	34	
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0	
Low Veg	11	16	26	45	63	77	72	68	52	34	22	5	491	



[illegible]

[illegible]



[illegible]

2002 LCRAS	Sheet W, Page 2 of 5				2002	DIVER TER ET							
Davis Dam to Parker Dam Water Balance Table													
(Sheet to calculate ET for the State of California [CA])													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
State of CA													
Monthly ET values													
Marsh	8	11	40	75	83	100	92	88	67	25	10	4	604
Barren	143	210	199	130	138	167	154	147	112	84	126	74	1686
Sc-low	144	211	284	564	907	1199	1109	1061	811	456	238	51	7036
Sc-high	78	114	183	370	572	727	673	644	492	275	140	28	4295
Sc/ms	36	53	87	180	281	358	331	317	242	135	68	13	2101
Sc/aw	3	4	7	15	23	29	27	26	20	11	6	1	171
Sc/ms/aw	5	7	13	25	38	49	45	43	33	21	11	2	293
Ms-low	7	10	15	26	37	47	43	41	32	21	12	3	294
Ms-high	13	20	34	66	95	116	107	102	78	50	31	6	720
Ms/aw	3	5	8	15	22	26	24	23	18	11	7	1	164
Aw	43	64	98	184	281	367	339	324	249	149	83	16	2198
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	34	49	77	134	189	232	215	206	158	102	67	15	1479

[illegible]

[illegible]







2002 LCRAS		Sheet X, Page 2 of 5		2002	DIVERTER ET								
Davis Dam to Parker Dam Water Balance Table (Sheet to calculate ET for the State of Nevada [NV]) (All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
State of NV													
Monthly ET values													
Marsh	1	1	5	8	9	11	11	10	8	3	1	1	69
Barren	168	247	234	152	163	196	181	173	132	99	148	87	1980
Sc-low	97	142	192	380	611	808	748	715	547	307	161	34	4744
Sc-high	37	54	87	176	272	346	320	306	234	131	67	13	2045
Sc/ms	13	20	32	67	105	134	124	119	91	51	25	5	786
Sc/aw	0	1	1	2	3	4	3	3	3	1	1	0	22
Sc/ms/aw	0	0	1	2	2	3	3	3	2	1	1	0	18
Ms-low	2	3	5	8	12	15	14	13	10	7	4	1	95
Ms-high	2	3	5	10	14	17	16	15	12	8	5	1	108
Ms/aw	3	4	7	13	18	22	21	20	15	10	6	1	140
Aw	1	1	1	2	3	4	4	4	3	2	1	0	25
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	18	27	42	73	103	127	117	112	86	55	36	8	805

[illegible]

[illegible]

2002 LCRAS	Sheet X, Page 5 of 5			2002 DIVERTER ET												
Davis Dam to Parker Dam Water Balance Table				(Sheet to calculate ET for the State of Nevada (NV))												
Monthly ET values, inches (from FMarea01.xlw)																
	January	February	March	April	May	June	July	August	September	October	November	December	Total			
Alfalfa-perennial	2.66	5.14	5.18	6.96	7.56	8.44	8.24	8.39	7.09	3.42	3.58	2.24	68.90			
Alfalfa-annual	2.06	5.42	5.07	6.37	9.17	6.17	10.15	0.00	0.00	0.00	0.00	0.89	45.30			
Alfalfa-seed	1.38	3.35	4.14	2.84	5.27	6.50	3.56	5.65	5.08	4.91	3.69	2.19	48.56			
Cotton	0.00	0.00	0.00	1.05	2.06	5.65	8.51	9.81	6.57	0.69	0.00	0.00	34.34			
Small Grain	2.99	5.78	7.05	8.11	2.88	0.00	0.00	0.00	0.00	0.00	0.52	0.77	28.10			
Field Grain	0.00	0.00	2.11	6.65	9.92	10.44	1.26	0.00	0.00	0.00	0.00	0.00	30.38			
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	4.35	0.00	7.12			
Lettuce-late	3.18	5.13	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	11.72			
Melons-spring	0.00	0.62	4.08	7.31	8.27	5.70	0.00	0.00	0.00	0.00	0.00	0.00	25.98			
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	4.07	4.53	4.67	1.09	15.77			
Bermuda	0.00	0.00	0.00	3.09	6.77	8.43	7.80	7.34	5.45	0.30	0.00	0.00	39.18			
Bermuda w/ rye	3.11	4.36	4.77	3.09	6.77	8.43	7.80	7.34	5.45	2.07	4.09	1.84	59.12			
Citrus-young	1.46	2.04	2.41	2.73	2.91	3.39	3.14	3.00	2.35	1.70	1.87	0.87	27.87			
Citrus-mature	2.43	3.41	4.01	4.54	4.85	5.65	5.23	5.00	3.92	2.86	3.12	1.46	46.48			
Citrus-declining	1.70	2.38	2.81	3.18	3.40	3.95	3.66	3.50	2.74	1.99	2.18	1.02	32.51			
Tomatoes	0.00	3.15	5.27	8.69	9.32	4.16	0.00	0.00	0.00	0.00	0.00	0.00	30.59			
Sudan	0.00	0.00	3.17	7.53	9.43	11.30	10.11	1.63	0.00	0.00	0.00	0.00	43.17			
Legume/Solanum Veg	3.68	5.30	2.58	0.00	0.00	0.00	0.00	0.00	0.00	1.14	3.37	2.06	18.13			
Crucifers	3.50	4.96	0.71	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.77	1.92	15.93			
Dates	3.06	4.65	6.16	7.44	8.27	9.80	8.97	8.48	6.42	4.38	4.37	1.90	73.90			
Safflower	0.00	1.98	4.65	8.72	10.23	11.05	1.67	0.00	0.00	0.00	0.00	0.00	38.30			
Orchards	1.57	2.31	3.51	5.42	7.10	8.58	7.94	7.59	5.82	4.01	3.91	1.26	59.02			
Small Vegetables	3.48	5.10	5.27	0.00	0.00	0.00	0.00	0.00	1.25	1.76	3.58	2.05	22.49			
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	3.31	4.90	1.90	12.48			
Perennial Vegetables	1.52	2.22	2.87	5.42	7.70	9.25	8.56	7.94	5.50	3.00	2.12	0.89	56.99			
Sugar Beets	3.75	5.49	6.70	7.67	6.18	0.17	0.00	0.00	0.77	1.61	3.01	2.02	37.37			
Grapes	0.00	0.30	1.76	4.75	6.98	8.41	7.39	5.60	1.76	0.00	0.00	0.00	36.95			
Herbs (Miscellaneous)	3.19	4.67	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.71	1.85	15.58			
Moist Soil Unit	3.5	5.14	6.13	7.3	4.95	3.16	9.86	9.9	4.46	4.68	4.69	2.07	65.84			
Seasonal Wetland	3.5	5.14	5.11	4.23	3.75	2.55	4.67	4.82	3.7	4.68	4.69	2.07	48.91			
Marsh	0.91	1.34	4.71	8.80	9.83	11.78	10.90	10.43	7.92	2.97	1.17	0.52	71.28			
Barren	1.16	1.70	1.61	1.05	1.12	1.35	1.25	1.19	0.91	0.68	1.02	0.60	13.64			
Sc-low	1.16	1.70	2.29	4.54	7.30	9.65	8.93	8.54	6.53	3.67	1.92	0.41	56.64			
Sc-high	1.16	1.70	2.74	5.53	8.55	10.87	10.06	9.62	7.36	4.11	2.09	0.42	64.21			
Sc/ms	1.16	1.70	2.80	5.82	9.08	11.56	10.70	10.23	7.82	4.36	2.19	0.42	67.84			
Sc/aw	1.16	1.70	2.77	5.66	8.79	11.19	10.35	9.90	7.57	4.22	2.14	0.42	65.87			
Sc/ms/aw	1.16	1.70	3.04	5.96	9.05	11.49	10.63	10.16	7.79	4.90	2.64	0.45	68.97			
Ms-low	1.16	1.70	2.63	4.48	6.38	8.02	7.42	7.09	5.44	3.57	2.09	0.43	50.41			
Ms-high	1.16	1.70	2.99	5.77	8.30	10.08	9.33	8.92	6.83	4.37	2.70	0.54	62.69			
Ms/aw	1.16	1.70	2.93	5.56	7.94	9.63	8.91	8.52	6.53	4.15	2.46	0.48	59.97			
Aw	1.16	1.70	2.61	4.93	7.50	9.80	9.07	8.67	6.65	3.99	2.22	0.44	58.74			
Cw	1.16	1.70	2.92	5.55	8.16	10.08	9.33	8.92	6.83	4.34	2.55	0.48	62.02			
Low Veg	1.23	1.81	2.83	4.90	6.91	8.50	7.87	7.52	5.77	3.72	2.45	0.56	54.07			

Parker Dam to  
Imperial Dam  
Water-Balance  
Table

2002 LCRAS	Sheet A, Page 1 of 2		2002		ANNUAL WATER BALANCE					
Parker Dam to Imperial Dam Water Balance Table										
(This sheet calculates the water balance on an annual basis.)										
(All values in acre-feet except where noted)										
Calculation of Difference between Qus and Qds (Qdif):			SEE in	Variance in						
		SEE in %	Acre-Feet	Acre-Feet^2						
Flow at Upstream Boundary (Qus)	7,565,400	2.20%	166,439	27,701,940,721						
Flow at Downstream Boundary (Qds)	6,181,777	1.50%	92,727	8,598,296,529						
Difference (Qdif)	1,383,623	13.77%	190,526							
Calcutations for Senator Wash Change in Storage SEE:						Contents at	Contents at	SEE in	Variance in	
	Contents	Elevation (ft)	SEE (ft)	Elev.+SEE	Elev.-SEE	Elev.+SEE	Elev.-SEE	Acre-Feet	Acre-Feet^2	
Beginning of Year	1,625	210.36	0.025	210.385	210.335	1,629	1,622	7	49	
End of year	1,968	212.78	0.025	212.805	212.755	1,972	1,964	8	64	
Change	343	2.42						11		
Water Balance:										
	Undistributed						Distributed	SEE of Distributed		
	Annual		SEE in	Variance in	Distributed	Percent of	Annual	Annual Values		
	Value	SEE in %	Acre-Feet	Acre-Feet^2	Residual	Residual	Value	Percent	Acre-Feet	
Difference (Qdif)	1,383,623	13.77%	190,526	36,300,156,676	168,568	94.40%	1,215,055	3.71%	45,079	
Inflows:										
Measured Tributary Inflow (Trm)	0	0.00%	0	0	0	0.00%	0	0.00%	0	
Unmeasured Tributary Inflow (Trum)	33,750	30.00%	10,125	102,515,625	476	0.27%	33,274	30.39%	10,111	
Outflows:										
Export Flow (Qex)	0	0.00%	0	0	0	0.00%	0	0.00%	0	
Change in Reservoir Storage (Sr)	343	3.21%	11	121	0	0.00%	343	3.21%	11	
Change in Aquifer Storage (Sa)	0	N/A	10,000	100,000,000	464	0.26%	464	2152.37%	9,987	
Domestic,Municipal & Industrial Use (CUd)	6,442	2.00%	129	16,641	0	0.00%	6,442	2.00%	129	
Agricultural Evapotranspiration (ETag)	806,132	5.00%	40,307	1,624,654,249	7,544	4.22%	813,676	4.85%	39,446	
Phreatophyte Evapotranspiration (ETpht)	353,420	5.00%	17,671	312,264,241	1,450	0.81%	354,870	4.96%	17,599	
Open-Water Evaporation (E)	72,472	5.00%	3,624	13,133,376	61	0.03%	72,533	4.99%	3,623	
Residual	178,564				178,563		1		64,132	
Residual as a percentage of Qus	2.36%		Total:	38,452,740,929		99.99%				

2002 LCRAS	Sheet A, Page 2 of 2		Final Results by Diverter						
<b>Parker Dam to Imperial Dam Water Balance Table</b>					Undistributed				
Diverter	Agricultural ET	Agricultural CU	Phreatophyte ET	Phreatophyte CU	Domestic Use	Domestic CU			
Arkelian Farm, AZ	0	0	2,566	2,577					
Bernal Farm, CA	0	0	1,238	1,243					
Cibola Valley I&DD, AZ	14,279	14,413	6,927	6,955					
Cibola NWR, AZ	8,205	8,282	46,737	46,929					
Cibola NWR, CA	0	0	19,429	19,509					
Clark Farm, CA	626	632	133	134					
CRIR, AZ	361,333	364,714	139,771	140,344					
CRIR, CA	0	0	35,746	35,893					
Ehrenberg Farm, AZ	2,718	2,743	1	1					
Imperial NWR, AZ	0	0	19,966	20,048					
Imperial NWR, CA	0	0	19,883	19,965					
North Lyn-de Farm, CA	842	850	1	1					
PVID, AZ	768	775	583	585					
PVID, CA	416,365	420,261	8,375	8,409					
Picacho SRA, CA	0	0	5,017	5,038					
South Lyn-de Farm, CA	0	0	3	3					
State of AZ	0	0	19,966	20,048					
State of CA	996	1,005	27,076	27,187					
-----	0	0	0	0					
Lake Enterprises (Chemgold, inc.),CA					2	2			
Hillcrest Water Company, AZ					19	19			
Parker (Town), AZ (1)					624	624			
Ehrenburg Improvement Assoc., AZ					287	287			
Parker Dam/Govt. Camp, CA (2)					147	147			
BLM Permitees, CA (3)					219	219			
BLM Permitees, AZ (4)					517	517			
Brooke Water L.L.C., AZ					243	243			
CRIT Domestic, AZ (5)					2,201	2,201			
Blythe Energy Project,CA					0	0			
Poston, AZ					54	54			
Cibola, AZ					24	24			
Martinez Lake, AZ**					1	1			
Earp, CA**					133	133			
Vidal, CA**					5	5			
Palo Verde, CA					33	33			
Big River, CA					177	177			
Blythe, CA (1)					1,702	1,702			
Ripley, CA**					53	53			
Check Totals	806,132	813,675	353,418	354,869	6,441	6,441			





2002 LCRAS			Sheet C				2002	Qus, and Trm and Trum INFLOW COMPONENTS									
Parker Dam to	Imperial Dam	Water Balance Table															
(Sheet to calculate the inflow components Qus, and Trm and Trum)																	
		January	February	March	April	May	June	July	August	September	October	November	December	Total			
(All values in acre-feet)																	
Qus, Flow at upstream boundary																	
Total		398300	498600	696900	809900	788700	816000	887800	745400	620300	538900	419300	345300	7565400			
Station		from USGS Arizona District database (see data file park2imp.xls)															
Parker Dam		398300	498600	696900	809900	788700	816000	887800	745400	620300	538900	419300	345300	7565400			
-----		0	0	0	0	0	0	0	0	0	0	0	0	0			
Trm, Measured Tributary Inflow																	
Total		0	0	0	0	0	0	0	0	0	0	0	0	0			
Station																	
-----		0	0	0	0	0	0	0	0	0	0	0	0	0			
Trum, Unmeasured Tributary Inflow																	
Total		2,813	2,813	2,813	2,813	2,813	2,813	2,813	2,813	2,813	2,813	2,813	2,813	33750			
Unmeasured runoff																	
				pg. 46, USGS Water Supply Paper 2407													
Whipple Mountains		95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	1150			
Big Marie-Riverside Mnts		191.7	191.7	191.7	191.7	191.7	191.7	191.7	191.7	191.7	191.7	191.7	191.7	2300			
Palo Verde-Mule Mnts		100	100	100	100	100	100	100	100	100	100	100	100	1200			
Dome Rock-Trigo		1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	16200			
& Chocolate Mountains																	
Unmeasured runoff in tributary streams																	
				pg. 46, USGS Water Supply Paper 2407													
Vidal Wash		108.3	108.3	108.3	108.3	108.3	108.3	108.3	108.3	108.3	108.3	108.3	108.3	1300			
Bouse Wash		400	400	400	400	400	400	400	400	400	400	400	400	4800			
Tyson Wash		216.7	216.7	216.7	216.7	216.7	216.7	216.7	216.7	216.7	216.7	216.7	216.7	2600			
McCoy Wash		66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	800			
Milpitas Wash		100	100	100	100	100	100	100	100	100	100	100	100	1200			
Ground-water discharge																	
				pg. 46, USGS Water Supply Paper 2407													
Bouse Wash		100	100	100	100	100	100	100	100	100	100	100	100	1200			
Tyson Wash		29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	350			
Vidal Wash		20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	250			
Chuckwalla Valley		33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	400			

[illegible]

2002 LCRAS			Sheet E				2002 CUD OUTFLOW COMPONENT							
Parker Dam to Imperial Dam Water Balance Table							(Sheet to calculate the outflow component CUD)							
(All values in acre-feet)														
		January	February	March	April	May	June	July	August	September	October	November	December	Total
CUD, Domestic, Municipal and Industrial Use														
Total		435	429	470	528	608	657	701	663	624	498	429	400	6442

Consumptive Use (estimated as 60% of diversion per Domestic Water Use Study of Boulder City NV 1988-1992, see file bcwater.wk1)														
Lake Enterprises (Chemgold, inc.),C	0.30	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2
Hillcrest Water Company, AZ	1.66	1.53	1.57	1.87	1.55	2.01	1.41	1.67	1.99	2.35	1.02	0.79		19
Parker (Town), AZ (1)	29.00	30.00	41.00	51.00	65.00	84.00	89.00	80.00	56.00	44.00	33.00	22.00		624
Ehrenburg Improvement Assoc., AZ	15.80	17.71	17.72	21.39	25.84	27.76	29.50	33.76	25.57	24.23	25.28	22.66		287
Parker Dam/Govt. Camp, CA (2)	6.61	4.51	6.07	8.98	19.15	17.20	25.10	20.68	17.33	9.10	7.20	5.27		147
BLM Permittees, CA (3)	15.25	17.11	20.20	25.67	26.35	19.73	25.00	23.96	13.69	12.79	8.62	10.26		219
BLM Permittees, AZ (4)	37.48	34.82	31.51	44.02	57.97	55.00	61.66	50.08	53.61	41.74	20.49	28.88		517
Brooke Water L.L.C., AZ	15.74	14.62	17.22	19.18	23.22	24.64	27.51	26.96	22.72	18.72	16.81	15.16		243
CRIT Domestic, AZ (5)	131.32	126.95	152.50	173.38	206.21	244.34	259.57	243.56	251.10	163.45	135.11	113.29		2201
Blythe Energy Project,CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0
-----	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0
-----	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0

(1) - Town of Parker AZ only. Excludes CRIT Domestic.

(2) - Monthly consumptive use per Decree Accounting diversion & return flow estimates.

(3) - Includes Riverland, Emerald Cove/Desert Riveria, Rio Del Colorado, Rite Spot, Windmill, Echo Lodge, Big Bend, River Lodge, Sunshine, Bullfrog, Empire Landing, Quail Hollow Developments, South Mesa (potable), Squaw Lake (irrigation), Walter's Camp, and Sportsman's Water Co.

(4) - Includes Buckskin Mountain & River Island State Parks, La Paz County Park/Golf Course, Paria Flats Recreation Area, Hidden Shores, and Betty's Kitchen (beginning in April).

(5) - Sum of diversions by 2 river pumps, water delivered by Town of Parker and an estimate of municipal diversion. Diversions estimated by multiplying CRIT's portion of measured effluent by nearby users diversions:effluent

Use Estimated by Per-Capita Rates	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	
Town Name	(population per 2000 U.S. Census data unless otherwise noted, see AZ2000.pdf & CA2000.pdf data files)													
Poston, AZ	population	389	389	389	389	389	389	389	389	389	389	389	389	
	CU	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	54
Cibola, AZ		172	172	172	172	172	172	172	172	172	172	172	172	
	CU	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24
Martinez Lake, AZ**		10	10	10	10	10	10	10	10	10	10	10	10	
	CU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
Earp, CA**		950	950	950	950	950	950	950	950	950	950	950	950	
	CU	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	133
Vidal, CA**		36	36	36	36	36	36	36	36	36	36	36	36	
	CU	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	5
Palo Verde, CA		236	236	236	236	236	236	236	236	236	236	236	236	
	CU	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	33
Big River, CA		1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	
	CU	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	177
Blythe, CA (1)		12158	12158	12158	12158	12158	12158	12158	12158	12158	12158	12158	12158	
	CU	141.8	141.8	141.8	141.8	141.8	141.8	141.8	141.8	141.8	141.8	141.8	141.8	1702
Ripley, CA**		376	376	376	376	376	376	376	376	376	376	376	376	
	CU	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	53

\* - Based on 0.14 acre feet per year (0.012 acre feet per month). See text of 1997 LCRAS Report, "Domestic Use" section

\*\* - Per 1992 U.S. Census data estimate, 2000 Census data unavailable.

[illegible]

[illegible]



[illegible]





2002 LCRAS	Sheet I, Page 2 of 5			2002		TOTAL DIVERTER ET								
Parker Dam to Imperial Dam Water Balance Table														
(Sheet to calculate ET for Arkelian Farm, AZ)														
(All values in acre-feet)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Arkelian Farm, AZ														
Monthly ET values														
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Barren	18	23	26	19	22	26	24	23	17	13	14	11	236	
Sc-low	11	14	22	47	84	108	103	97	69	39	16	5	613	
Sc-high	6	8	16	34	59	73	69	66	47	26	11	3	417	
Sc/ms	2	3	6	14	24	30	28	27	19	11	4	1	170	
Sc/aw	2	3	5	12	20	25	24	23	16	9	4	1	143	
Sc/ms/aw	1	1	2	3	6	7	7	6	4	3	1	0	41	
Ms-low	11	14	26	48	76	94	89	84	60	40	18	5	566	
Ms-high	1	1	1	3	5	5	5	5	4	2	1	0	33	
Ms/aw	1	1	1	3	5	6	5	5	4	2	1	0	33	
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0	
Low Veg	6	8	15	27	43	51	49	46	33	21	11	3	313	



[illegible]

2002 LCRAS	Sheet I, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table				(Sheet to calculate ET for Arkelian Farm, AZ)									
Monthly ET values, inches (from PCarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30



2002 LCRAS	Sheet J, Page 2 of 5		2002 TOTAL DIVERTER ET										
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for Bernal Farm, CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Bernal Farm, CA													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	2	3	3	2	2	3	3	3	2	1	2	1	26
Sc-low	1	1	2	5	8	11	10	10	7	4	2	0	61
Sc-high	3	3	6	13	23	28	27	26	18	10	4	1	162
Sc/ms	4	6	11	25	43	53	50	48	34	19	8	2	302
Sc/aw	2	2	4	10	17	21	20	18	13	7	3	1	117
Sc/ms/aw	3	4	7	16	27	33	31	30	21	13	6	1	192
Ms-low	1	1	2	3	4	5	5	5	4	2	1	0	33
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	1
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	4	5	8	17	29	37	35	33	23	14	6	2	211
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	3	3	6	11	18	22	20	19	14	9	5	1	131





[illegible]

2002 LCRAS	Sheet J, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table				(Sheet to calculate ET for Bernal Farm, CA)									
Monthly ET values, inches (from PCarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30



2002 LCRAS	Sheet K, Page 2 of 5				2002	TOTAL DIVERTER ET													
Parker Dam to Imperial Dam Water Balance Table																			
(Sheet to calculate ET for Cibola Valley Irrigation and Drainage District [I&DD])																			
(All values in acre-feet)																			
	January	February	March	April	May	June	July	August	September	October	November	December	Total						
Cibola Valley I&DD, AZ																			
Monthly ET values																			
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0						
Barren	12	16	17	12	15	17	16	15	11	8	9	7	158						
Sc-low	7	9	15	31	56	72	68	64	46	26	11	3	408						
Sc-high	29	37	72	155	267	331	315	298	212	118	48	12	1895						
Sc/ms	9	11	21	48	83	103	98	93	66	37	15	4	586						
Sc/aw	4	5	10	22	38	47	45	42	30	17	7	2	270						
Sc/ms/aw	2	3	6	12	21	26	25	23	17	10	4	1	150						
Ms-low	18	23	42	76	121	149	141	134	96	63	29	8	900						
Ms-high	5	6	12	26	41	49	46	44	31	20	10	3	292						
Ms/aw	6	8	15	31	50	59	56	53	38	24	11	3	355						
Aw	9	11	20	40	68	87	83	78	56	34	15	4	505						
Cw	14	18	37	75	122	147	140	133	95	60	28	7	875						
Low Veg	11	13	25	46	73	88	83	79	56	36	19	6	535						

[illegible]





2002 LCRAS	Sheet L, Page 1 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for Cibola National Wildlife Refuge [NWR], AZ)													
(Based on average ETo values from 3 CIMIS and 1 AZMET station, and average precipitation from area CIMIS, AZMET, and NWS Weather Stations).													
(ET's for each crop/phreatophyte are calculated in filename PCarea01.xlw)													
(All values in acre-feet)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Total Agricultural ET	332	503	623	833	1029	1052	1012	968	736	462	380	274	8205
On-District Open-Water Evap.													
Cibola NWR, AZ	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Phreatophyte ET													
Cibola NWR, AZ	784	997	1923	3925	6493	8021	7618	7208	5141	2970	1294	364	46737
Monthly ET values													
Alfalfa-perennial	155	271	313	454	559	614	611	605	481	246	194	158	4662
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0
Cotton	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Grain	23	38	55	68	27	0	0	0	0	0	3	7	222
Field Grain	0	0	20	66	110	114	16	0	0	0	0	0	326
Lettuce-early	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce-late	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons-spring	0	1	5	10	13	9	0	0	0	0	0	0	38
Melons-fall	0	0	0	0	0	0	0	0	0	0	0	0	0
Bermuda	0	0	0	23	56	69	65	61	42	2	0	0	319
Bermuda w/ rye	24	29	38	27	65	79	75	70	48	19	28	17	519
Citrus-young	0	0	0	0	0	0	0	0	0	0	0	0	0
Citrus-mature	0	0	0	0	0	0	0	0	0	0	0	0	0
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	0	0	4	11	16	19	17	3	0	0	0	0	70
Legume/Solanum Veg	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucifers	9	11	2	0	0	0	0	0	0	6	6	6	41
Dates	0	0	0	0	0	0	0	0	0	0	0	0	0
Safflower	0	0	0	0	0	0	0	0	0	0	0	0	0
Orchards	10	12	22	36	53	62	59	56	40	28	21	9	407
Small Vegetables	11	14	17	0	0	0	0	0	5	7	10	8	72
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0	0
Grapes	0	0	0	0	0	0	0	0	0	0	0	0	0
Herbs (Miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0	0
Moist Soil Unit	4	5	7	9	7	4	14	14	6	6	5	3	84
Seasonal Wetland	96	121	139	127	124	83	155	160	114	147	113	66	1447



2002 LCRAS	Sheet L, Page 2 of 5			2002	TOTAL DIVERTER ET								
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for Cibola National Wildlife Refuge [NWR], AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Cibola NWR, AZ													
Monthly ET values													
Marsh	25	32	135	268	333	390	371	351	248	91	29	17	2290
Barren	43	54	60	43	51	59	56	53	38	29	33	26	545
Sc-low	63	81	129	275	492	635	603	570	407	229	96	27	3608
Sc-high	166	211	403	873	1501	1866	1772	1677	1195	667	271	70	10672
Sc/ms	125	159	312	694	1206	1500	1424	1349	961	535	215	53	8533
Sc/aw	56	71	138	302	522	648	616	583	416	232	94	24	3701
Sc/ms/aw	26	34	71	150	253	314	298	282	201	127	54	12	1822
Ms-low	56	71	130	238	379	464	441	417	298	196	91	24	2806
Ms-high	44	56	117	242	388	460	437	414	296	190	92	24	2761
Ms/aw	36	46	94	192	305	362	344	325	232	148	69	18	2171
Aw	73	94	170	345	586	747	709	671	480	288	127	33	4322
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	70	88	164	304	478	574	545	516	368	239	124	37	3507

[illegible]







2002 LCRAS	Sheet M, Page 2 of 5			2002	TOTAL DIVERTER ET														
Parker Dam to Imperial Dam Water Balance Table																			
(Sheet to calculate ET for Cibola National Wildlife Refuge [NWR], CA)																			
(All values in acre-feet)																			
	January	February	March	April	May	June	July	August	September	October	November	December	Total						
Cibola NWR, CA																			
Monthly ET values																			
Marsh	6	8	33	65	81	95	90	85	60	22	7	4	558						
Barren	13	17	19	14	16	19	18	17	12	9	10	8	172						
Sc-low	39	49	78	167	299	386	366	346	247	139	58	16	2190						
Sc-high	103	131	251	545	937	1164	1106	1046	746	416	169	44	6660						
Sc/ms	37	47	92	204	355	441	419	397	283	157	63	16	2511						
Sc/aw	26	33	65	142	245	305	289	274	195	109	44	11	1739						
Sc/ms/aw	10	13	27	57	96	119	113	107	77	48	21	5	692						
Ms-low	9	12	21	39	61	75	71	67	48	32	15	4	454						
Ms-high	13	16	33	69	110	131	125	118	84	54	26	7	786						
Ms/aw	9	11	23	46	74	87	83	78	56	36	17	4	524						
Aw	27	34	62	126	213	272	258	244	174	105	46	12	1572						
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0						
Low Veg	31	40	73	136	214	258	245	231	165	107	55	17	1573						

[illegible]

[illegible]



2002 LCRAS	Sheet M, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table	(Sheet to calculate ET for Cibola National Wildlife Refuge [NWR], CA)												
Monthly ET values, inches (from PCarea01.xlw)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

[illegible]

2002 LCRAS	Sheet N, Page 2 of 5		2002		TOTAL DIVERTER ET								
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for Clark Farm, CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Clark Farm, CA													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	1	1	1	1	1	1	1	1	1	1	1	1	12
Sc-low	0	0	0	0	1	1	1	1	0	0	0	0	4
Sc-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms	0	1	1	2	4	5	5	5	3	2	1	0	30
Sc/aw	0	0	1	1	2	3	2	2	2	1	0	0	15
Sc/ms/aw	0	0	1	1	2	2	2	2	1	1	0	0	13
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	1	1	2	3	5	7	7	6	4	3	1	0	40
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	0	0	1	2	3	3	3	3	2	1	1	0	19

[illegible]

[illegible]

2002 LCRAS	Sheet N, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table				(Sheet to calculate ET for Clark Farm, CA)									
Monthly ET values, inches (from PCarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

2002 LCRAS			Sheet O, Page 1 of 5		2002	TOTAL DIVERTER ET								
Parker Dam to Imperial Dam Water Balance Table														
(Sheet to calculate ET for the Colorado River Indian Reservation [CRIR], AZ)														
(Based on average ETo values from 3 CIMIS and 1 AZMET station, and average precipitation from area CIMIS, AZMET, and NWS Weather Stations).														
(ET's for each crop/phreatophyte are calculated in filename PCarea01.xlw)														
(All values in acre-feet)	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Total Agricultural ET	11727	20075	24905	36633	44199	49327	49902	47240	36150	16828	13336	11009	361333	
On-District Open-Water Evap. (from Sheet H)														
CRIR, AZ	47	64	105	151	184	220	207	196	126	103	80	37	1520	
Total Phreatophyte ET														
CRIR, AZ	2737	3482	6172	11651	19052	23499	22314	21114	15072	9095	4252	1331	139771	
Monthly ET values														
Alfalfa-perennial	9964	17402	20153	29214	35932	39449	39313	38908	30928	15824	12488	10189	299764	
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0	
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cotton	0	0	0	569	1280	3376	5207	6000	3722	370	0	0	20524	
Small Grain	1070	1769	2527	3148	1222	0	0	0	0	0	128	321	10184	
Field Grain	0	0	72	243	403	417	59	0	0	0	0	0	1194	
Lettuce-early	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lettuce-late	0	0	0	0	0	0	0	0	0	0	0	0	0	
Melons-spring	0	26	223	430	541	372	0	0	0	0	0	0	1592	
Melons-fall	0	0	0	0	0	0	0	17	44	49	38	12	160	
Bermuda	0	0	0	516	1251	1522	1446	1346	932	55	0	0	7068	
Bermuda w/ rye	72	87	112	79	191	233	221	206	143	58	83	50	1534	
Citrus-young	0	0	0	0	0	0	0	0	0	0	0	0	0	
Citrus-mature	0	0	0	0	0	0	0	0	0	0	0	0	0	
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sudan	0	0	882	2247	3143	3679	3390	514	0	0	0	0	13856	
Legume/Solanum Veg	23	29	16	0	0	0	0	0	0	10	18	15	111	
Crucifers	29	36	6	0	0	0	0	0	0	20	20	19	129	
Dates	0	0	0	0	0	0	0	0	0	0	0	0	0	
Safflower	0	0	0	0	0	0	0	0	0	0	0	0	0	
Orchards	9	11	20	33	49	58	55	52	37	26	19	8	377	
Small Vegetables	514	651	789	0	0	0	0	0	215	309	457	356	3290	
Root Vegetables	0	0	0	0	0	0	0	0	3	4	5	2	14	
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grapes	0	0	1	2	3	4	3	3	1	0	0	0	17	
Herbs (Miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0	0	

2002 LCRAS	Sheet O, Page 2 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for the Colorado River Indian Reservation [CRIR], AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
CRIR, AZ													
Monthly ET values													
Marsh	36	46	192	382	475	556	529	500	354	129	41	24	3264
Barren	519	660	728	524	618	723	686	649	466	356	398	314	6641
Sc-low	251	319	509	1087	1947	2512	2385	2256	1610	905	378	106	14266
Sc-high	128	162	311	673	1158	1439	1367	1293	922	514	209	54	8229
Sc/ms	256	325	638	1418	2464	3065	2911	2756	1963	1092	439	108	17435
Sc/aw	159	203	393	860	1487	1848	1756	1661	1185	660	267	68	10546
Sc/ms/aw	142	180	382	804	1361	1688	1603	1516	1084	681	292	64	9798
Ms-low	383	488	894	1634	2598	3187	3024	2862	2045	1348	623	167	19253
Ms-high	191	244	509	1052	1685	2000	1899	1799	1284	824	400	104	11991
Ms/aw	186	237	483	985	1567	1860	1766	1670	1194	760	355	90	11154
Aw	313	399	725	1472	2498	3185	3024	2862	2045	1229	541	139	18434
Cw	6	7	15	30	49	59	56	53	38	24	11	3	351
Low Veg	167	211	393	729	1145	1377	1308	1237	884	573	297	88	8410





[illegible]

2002 LCRAS	Sheet O, Page 5 of 5				2002 TOTAL DIVERTER ET								
Parker Dam to Imperial Dam Water Balance Table	(Sheet to calculate ET for the Colorado River Indian Reservation [CRIR], AZ)												
Monthly ET values, inches (from PCarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3.00	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3.00	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30



2002 LCRAS	Sheet P, Page 2 of 5				2002	TOTAL DIVERTER ET														
Parker Dam to Imperial Dam Water Balance Table																				
(Sheet to calculate ET for the Colorado River Indian Reservation [CRIR], CA)																				
(All values in acre-feet)																				
	January	February	March	April	May	June	July	August	September	October	November	December	Total							
CRIR, CA																				
Monthly ET values																				
Marsh	12	15	63	126	156	183	174	164	116	42	13	8	1072							
Barren	139	177	196	141	166	194	184	174	125	96	107	84	1784							
Sc-low	92	118	187	400	716	924	878	830	592	333	139	39	5249							
Sc-high	75	96	183	396	681	846	804	760	542	302	123	32	4839							
Sc/ms	70	89	173	386	670	834	792	749	534	297	119	30	4742							
Sc/aw	40	51	99	217	376	467	444	420	300	167	68	17	2667							
Sc/ms/aw	30	38	80	169	286	354	337	318	227	143	61	14	2057							
Ms-low	86	109	200	365	581	712	676	640	457	301	139	37	4304							
Ms-high	33	42	88	181	290	344	327	310	221	142	69	18	2064							
Ms/aw	34	44	89	181	288	342	325	307	220	140	65	17	2052							
Aw	54	68	124	251	427	544	516	489	349	210	92	24	3148							
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0							
Low Veg	35	44	83	153	241	290	275	260	186	120	62	19	1769							

[illegible]

[illegible]





[illegible]



[illegible]

[illegible]



[illegible]

2002 LCRAS	Sheet R, Page 2 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for Imperial National Wildlife Refuge [NWR], AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Imperial NWR, AZ													
Monthly ET values													
Marsh	11	14	61	120	150	175	167	158	111	41	13	8	1028
Barren	121	155	171	123	145	169	161	152	109	83	93	74	1556
Sc-low	58	74	118	252	451	582	552	522	373	210	87	25	3304
Sc-high	48	62	118	255	439	546	518	490	350	195	79	21	3120
Sc/ms	36	45	89	198	344	427	406	384	274	152	61	15	2431
Sc/aw	23	29	57	124	215	268	254	240	172	96	39	10	1527
Sc/ms/aw	14	18	38	81	137	170	161	152	109	68	29	6	985
Ms-low	32	40	74	135	215	264	251	237	169	112	52	14	1596
Ms-high	7	8	17	36	58	69	65	62	44	28	14	4	412
Ms/aw	12	15	30	62	98	116	110	104	75	47	22	6	697
Aw	25	32	59	120	203	259	246	233	166	100	44	11	1499
Cw	1	1	2	5	8	10	9	9	6	4	2	0	59
Low Veg	35	44	82	152	239	287	273	258	184	119	62	18	1753

[illegible]



[illegible]

2002 LCRAS	Sheet R, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table	(Sheet to calculate ET for Imperial National Wildlife Refuge [NWR], AZ)												
Monthly ET values, inches (from PCarea01.xlw)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

[illegible]

2002 LCRAS	Sheet S, Page 2 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for Imperial National Wildlife Refuge [NWR], CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Imperial NWR, CA													
Monthly ET values													
Marsh	39	50	209	416	516	605	575	544	385	141	45	26	3549
Barren	30	38	42	30	35	41	39	37	27	20	23	18	379
Sc-low	31	40	63	135	241	311	295	279	199	112	47	13	1765
Sc-high	56	72	137	297	511	635	603	571	407	227	92	24	3633
Sc/ms	59	76	148	330	573	713	677	641	456	254	102	25	4055
Sc/aw	17	22	43	94	162	202	192	181	129	72	29	7	1152
Sc/ms/aw	8	11	23	47	80	100	95	89	64	40	17	4	578
Ms-low	23	29	54	99	157	192	182	173	123	81	38	10	1161
Ms-high	14	18	38	78	125	148	141	133	95	61	30	8	889
Ms/aw	13	16	33	67	106	126	119	113	81	51	24	6	754
Aw	25	32	59	120	203	259	246	233	166	100	44	11	1498
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	9	12	22	41	64	77	73	69	49	32	17	5	471

[illegible]

[illegible]

2002 LCRAS	Sheet S, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table	(Sheet to calculate ET for Imperial National Wildlife Refuge [NWR], CA)												
Monthly ET values, inches (from PCarea01.xlw)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

[illegible]





[illegible]

[illegible]

2002 LCRAS	Sheet T, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table				(Sheet to calculate ET for North Lyn-de Farm, CA)									
Monthly ET values, inches (from PCarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

[illegible]

2002 LCRAS	Sheet U, Page 2 of 5			2002 TOTAL DIVERTER ET															
Parker Dam to Imperial Dam Water Balance Table																			
(Sheet to calculate ET for the Palo Verde Irrigation District [PVID], AZ)																			
(All values in acre-feet)																			
	January	February	March	April	May	June	July	August	September	October	November	December	Total						
PVID, AZ																			
Monthly ET values																			
Marsh	1	1	3	6	7	8	8	7	5	2	1	0	49						
Barren	1	1	1	1	1	1	1	1	1	0	1	0	9						
Sc-low	1	1	2	4	8	10	9	9	6	4	1	0	55						
Sc-high	1	1	2	5	8	10	9	9	6	3	1	0	56						
Sc/ms	0	1	1	2	4	5	5	5	3	2	1	0	31						
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0						
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0						
Ms-low	1	1	2	4	6	7	7	6	5	3	1	0	43						
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	2						
Ms/aw	3	4	8	15	25	29	28	26	19	12	6	1	175						
Aw	2	2	4	9	16	20	19	18	13	8	3	1	114						
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0						
Low Veg	1	1	2	4	7	8	8	7	5	3	2	1	49						

[illegible]

[illegible]



2002 LCRAS	Sheet U, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table	(Sheet to calculate ET for the Palo Verde Irrigation District [PVID], AZ)												
Monthly ET values, inches (from PCarea01.xlw)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

2002 LCRAS		Sheet V, Page 1 of 5		2002	TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table														
(Sheet to calculate ET for the Palo Verde Irrigation District [PVID], CA)														
(Based on average ETo values from 3 CIMIS and 1 AZMET station, and average precipitation from area CIMIS, AZMET, and NWS Weather Stations).														
(ET's for each crop/phreatophyte are calculated in filename PCarea01.xlw)														
(All values in acre-feet)	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Total Agricultural ET	13621	22893	28486	41776	50833	56721	56698	55686	42274	19452	15479	12445	416365	
On-District Open-Water Evap. (from Sheet H)														
PVID, CA	121	163	267	386	469	561	528	499	322	264	204	95	3878	
Total Phreatophyte ET														
PVID, CA	191	242	400	698	1122	1383	1313	1242	887	534	265	97	8375	
Monthly ET values														
Alfalfa-perennial	10509	18355	21256	30814	37899	41608	41465	41037	32621	16691	13172	10747	316174	
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0	
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cotton	0	0	0	909	2042	5386	8309	9573	5939	590	0	0	32747	
Small Grain	1326	2193	3131	3901	1514	0	0	0	0	0	158	398	12620	
Field Grain	0	0	115	388	644	665	93	0	0	0	0	0	1904	
Lettuce-early	0	0	0	0	0	0	0	0	0	49	57	0	106	
Lettuce-late	59	82	49	0	0	0	0	0	0	0	0	13	203	
Melons-spring	0	124	1086	2089	2632	1807	0	0	0	0	0	0	7738	
Melons-fall	0	0	0	0	0	0	0	123	323	364	285	90	1186	
Bermuda	0	0	0	620	1506	1832	1741	1620	1122	66	0	0	8507	
Bermuda w/ rye	514	624	805	564	1370	1666	1584	1474	1021	412	597	356	10989	
Citrus-young	16	20	27	34	40	45	43	41	30	22	18	12	349	
Citrus-mature	345	421	578	711	843	961	913	863	631	474	388	243	7369	
Citrus-declining	61	74	101	125	148	169	160	152	111	83	68	43	1293	
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sudan	0	0	478	1217	1702	1993	1836	279	0	0	0	0	7505	
Legume/Solanum Veg	17	22	12	0	0	0	0	0	0	8	14	11	84	
Crucifers	320	392	65	0	0	0	0	0	0	220	218	206	1421	
Dates	5	7	11	14	17	20	18	17	12	9	6	4	140	
Safflower	0	0	0	0	0	0	0	0	0	0	0	0	0	
Orchards	1	2	3	5	7	9	8	8	6	4	3	1	58	
Small Vegetables	327	414	502	0	0	0	0	0	137	197	291	226	2094	
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0	
Perennial Vegetables	0	0	0											

2002 LCRAS	Sheet V, Page 2 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for the Palo Verde Irrigation District [PVID], CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
PVID, CA													
Monthly ET values													
Marsh	4	4	19	38	47	55	52	49	35	13	4	2	320
Barren	61	78	86	62	73	85	81	76	55	42	47	37	782
Sc-low	23	30	48	102	182	235	223	211	150	85	35	10	1332
Sc-high	9	12	23	50	86	107	101	96	68	38	15	4	609
Sc/ms	12	15	30	67	116	144	137	130	92	51	21	5	821
Sc/aw	8	11	21	45	78	97	92	87	62	35	14	4	553
Sc/ms/aw	5	6	14	29	48	60	57	54	39	24	10	2	348
Ms-low	18	23	42	76	121	148	140	133	95	63	29	8	894
Ms-high	2	2	4	8	14	16	15	14	10	7	3	1	96
Ms/aw	8	10	20	42	66	78	74	70	50	32	15	4	470
Aw	12	16	28	58	98	125	118	112	80	48	21	5	722
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	28	36	67	124	194	234	222	210	150	97	50	15	1426

[illegible]

[illegible]

2002 LCRAS	Sheet V, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table	(Sheet to calculate ET for the Palo Verde Irrigation District [PVID], CA)												
Monthly ET values, inches (from PCarea01.xlw)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

[illegible]

2002 LCRAS	Sheet W, Page 2 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for Picacho State Recreation Area [SRA], CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Picacho SRA, CA													
Monthly ET values													
Marsh	7	9	38	76	95	111	105	100	71	26	8	5	651
Barren	13	16	18	13	15	18	17	16	11	9	10	8	162
Sc-low	17	22	34	73	131	169	161	152	108	61	25	7	961
Sc-high	5	6	12	27	46	57	54	51	36	20	8	2	326
Sc/ms	8	10	19	43	74	92	87	83	59	33	13	3	523
Sc/aw	6	7	14	31	53	66	63	59	42	24	10	2	376
Sc/ms/aw	2	2	4	9	15	18	17	16	12	7	3	1	105
Ms-low	3	4	7	14	22	26	25	24	17	11	5	1	160
Ms-high	0	1	1	2	4	4	4	4	3	2	1	0	26
Ms/aw	7	9	19	38	61	72	68	65	46	29	14	3	432
Aw	7	9	17	34	58	74	70	66	47	28	13	3	426
Cw	8	10	20	41	67	81	77	73	52	33	15	4	482
Low Veg	8	10	18	34	53	64	60	57	41	26	14	4	388



[illegible]

[illegible]

2002 LCRAS	Sheet W, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table	(Sheet to calculate ET for Picacho State Recreation Area [SRA], CA)												
Monthly ET values, inches (from PCarea01.xlw)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

[illegible]



[illegible]

[illegible]

2002 LCRAS	Sheet X, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table				(Sheet to calculate ET for South Lyn-de Farm, CA)									
Monthly ET values, inches (from PCarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30



[illegible]

2002 LCRAS	Sheet Y, Page 2 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for the State of Arizona [AZ])													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
State of AZ													
Monthly ET values													
Marsh	11	14	61	120	150	175	167	158	111	41	13	8	1028
Barren	121	155	171	123	145	169	161	152	109	83	93	74	1556
Sc-low	58	74	118	252	451	582	552	522	373	210	87	25	3304
Sc-high	48	62	118	255	439	546	518	490	350	195	79	21	3120
Sc/ms	36	45	89	198	344	427	406	384	274	152	61	15	2431
Sc/aw	23	29	57	124	215	268	254	240	172	96	39	10	1527
Sc/ms/aw	14	18	38	81	137	170	161	152	109	68	29	6	985
Ms-low	32	40	74	135	215	264	251	237	169	112	52	14	1596
Ms-high	7	8	17	36	58	69	65	62	44	28	14	4	412
Ms/aw	12	15	30	62	98	116	110	104	75	47	22	6	697
Aw	25	32	59	120	203	259	246	233	166	100	44	11	1499
Cw	1	1	2	5	8	10	9	9	6	4	2	0	59
Low Veg	35	44	82	152	239	287	273	258	184	119	62	18	1753

[illegible]

[illegible]

2002 LCRAS	Sheet Y, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table				(Sheet to calculate ET for the State of Arizona [AZ])									
Monthly ET values, inches (from PCarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

2002 LCRAS	Sheet Z, Page 1 of 5			2002	TOTAL DIVERTER ET													
Parker Dam to Imperial Dam Water Balance Table																		
(Sheet to calculate ET for the State of California [CA])																		
(Based on average ETo values from 3 CIMIS and 1 AZMET station, and average precipitation from area CIMIS, AZMET, and NWS Weather Stations).																		
(ET's for each crop/phreatophyte are calculated in filename PCarea01.xlw)																		
(All values in acre-feet)	January	February	March	April	May	June	July	August	September	October	November	December	Total					
Total Agricultural ET	42	53	77	97	117	135	127	120	86	63	50	30	996					
On-District Open-Water Evap.																		
State of CA	0	0	0	0	0	0	0	0	0	0	0	0	0					
Total Phreatophyte ET																		
State of CA	559	711	1216	2246	3674	4551	4322	4090	2918	1710	804	275	27076					
Monthly ET values																		
Alfalfa-perennial	0	0	0	0	0	0	0	0	0	0	0	0	0					
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0					
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0					
Cotton	0	0	0	0	0	0	0	0	0	0	0	0	0					
Small Grain	0	0	0	0	0	0	0	0	0	0	0	0	0					
Field Grain	0	0	0	0	0	0	0	0	0	0	0	0	0					
Lettuce-early	0	0	0	0	0	0	0	0	0	0	0	0	0					
Lettuce-late	0	0	0	0	0	0	0	0	0	0	0	0	0					
Melons-spring	0	0	0	0	0	0	0	0	0	0	0	0	0					
Melons-fall	0	0	0	0	0	0	0	0	0	0	0	0	0					
Bermuda	0	0	0	0	0	0	0	0	0	0	0	0	0					
Bermuda w/ rye	0	0	0	0	0	0	0	0	0	0	0	0	0					
Citrus-young	5	6	8	10	12	13	13	12	9	7	5	3	103					
Citrus-mature	12	15	20	25	29	33	32	30	22	17	14	8	257					
Citrus-declining	9	11	15	19	22	25	24	23	17	12	10	6	194					
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0					
Sudan	0	0	0	0	0	0	0	0	0	0	0	0	0					
Legume/Solanum Veg	0	0	0	0	0	0	0	0	0	0	0	0	0					
Crucifers	0	0	0	0	0	0	0	0	0	0	0	0	0					
Dates	16	21	33	43	53	62	58	54	38	27	20	12	437					
Safflower	0	0	0	0	0	0	0	0	0	0	0	0	0					
Orchards	0	0	0	1	1	1	1	1	1	0	0	0	6					
Small Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0					
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0					
Perennial Vegetables	0	0	0	0	0													

2002 LCRAS	Sheet Z, Page 2 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table													
(Sheet to calculate ET for the State of California [CA])													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
State of CA													
Monthly ET values													
Marsh	12	16	67	133	165	193	184	174	123	45	14	8	1134
Barren	142	181	200	144	170	199	189	178	128	98	109	86	1825
Sc-low	84	107	171	364	652	841	799	756	539	303	126	36	4778
Sc-high	71	91	173	375	646	803	762	721	514	287	117	30	4591
Sc/ms	60	76	149	330	574	714	678	642	457	255	102	25	4063
Sc/aw	22	28	53	117	202	251	238	226	161	90	36	9	1432
Sc/ms/aw	13	17	36	77	130	161	153	144	103	65	28	6	933
Ms-low	43	55	100	183	290	356	338	320	229	151	70	19	2152
Ms-high	14	18	38	79	127	150	143	135	97	62	30	8	902
Ms/aw	12	15	31	63	100	118	112	106	76	48	23	6	709
Aw	35	44	80	163	276	352	334	317	226	136	60	15	2039
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	50	63	118	218	343	412	391	370	264	171	89	26	2516

[illegible]



[illegible]

2002 LCRAS	Sheet Z, Page 5 of 5			2002 TOTAL DIVERTER ET									
Parker Dam to Imperial Dam Water Balance Table				(Sheet to calculate ET for the State of California [CA])									
Monthly ET values, inches (from PCarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.21	3.86	4.47	6.48	7.97	8.75	8.72	8.63	6.86	3.51	2.77	2.26	66.49
Alfalfa-annual	1.80	4.07	4.33	6.00	9.58	6.28	10.62	0.00	0.00	0.00	0.00	0.90	43.58
Alfalfa-seed	1.19	2.51	3.53	2.69	5.56	6.73	3.71	5.92	4.90	4.88	2.89	2.21	46.72
Cotton	0.00	0.00	0.00	0.97	2.18	5.75	8.87	10.22	6.34	0.63	0.00	0.00	34.96
Small Grain	2.60	4.30	6.14	7.65	2.97	0.00	0.00	0.00	0.00	0.00	0.31	0.78	24.75
Field Grain	0.00	0.00	1.86	6.27	10.41	10.75	1.51	0.00	0.00	0.00	0.00	0.00	30.80
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78	3.24	0.00	6.02
Lettuce-late	2.74	3.82	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	9.46
Melons-spring	0.00	0.41	3.58	6.89	8.68	5.96	0.00	0.00	0.00	0.00	0.00	0.00	25.52
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.99	4.50	3.52	1.11	14.64
Bermuda	0.00	0.00	0.00	2.93	7.11	8.65	8.22	7.65	5.30	0.31	0.00	0.00	40.17
Bermuda w/ rye	2.67	3.24	4.18	2.93	7.11	8.65	8.22	7.65	5.30	2.14	3.10	1.85	57.04
Citrus-young	1.25	1.53	2.09	2.57	3.05	3.48	3.30	3.13	2.29	1.71	1.40	0.88	26.68
Citrus-mature	2.08	2.54	3.49	4.29	5.09	5.80	5.51	5.21	3.81	2.86	2.34	1.47	44.49
Citrus-declining	1.46	1.78	2.44	3.00	3.56	4.06	3.85	3.65	2.67	2.00	1.64	1.03	31.14
Tomatoes	0.00	2.35	4.63	8.20	9.76	4.41	0.00	0.00	0.00	0.00	0.00	0.00	29.35
Sudan	0.00	0.00	2.78	7.08	9.90	11.59	10.68	1.62	0.00	0.00	0.00	0.00	43.65
Legume/Solanum Veg	3.16	3.95	2.14	0.00	0.00	0.00	0.00	0.00	0.00	1.38	2.50	2.08	15.21
Crucifers	3.01	3.69	0.61	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.05	1.94	13.37
Dates	2.63	3.46	5.37	7.03	8.68	10.06	9.45	8.84	6.24	4.35	3.30	1.92	71.33
Safflower	0.00	1.48	4.09	8.21	10.74	11.36	1.94	0.00	0.00	0.00	0.00	0.00	37.82
Orchards	1.35	1.73	3.07	5.12	7.45	8.81	8.37	7.92	5.65	3.98	2.97	1.27	57.69
Small Vegetables	2.99	3.79	4.59	0.00	0.00	0.00	0.00	0.00	1.25	1.80	2.66	2.07	19.15
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	3.38	3.70	1.94	11.32
Perennial Vegetables	1.31	1.66	2.51	5.11	8.08	9.49	9.01	8.27	5.33	2.96	1.60	0.90	56.23
Sugar Beets	3.22	4.08	5.84	7.24	6.46	0.23	0.00	0.00	0.82	1.63	2.24	2.03	33.79
Grapes	0.00	0.26	1.56	4.48	7.33	8.63	7.81	5.82	1.65	0.00	0.00	0.00	37.54
Herbs (Miscellaneous)	2.74	3.47	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.99	1.87	13.01
Moist Soil Unit	3	3.81	5.34	6.89	5.1	3.22	10.36	10.3	4.29	4.61	3.55	2.08	62.55
Seasonal Wetland	3	3.81	4.37	3.98	3.9	2.62	4.86	5.03	3.59	4.61	3.55	2.08	45.40
Marsh	0.78	0.99	4.18	8.31	10.32	12.09	11.49	10.87	7.69	2.81	0.89	0.52	70.94
Barren	0.99	1.26	1.39	1.00	1.18	1.38	1.31	1.24	0.89	0.68	0.76	0.60	12.68
Sc-low	0.99	1.26	2.01	4.29	7.68	9.91	9.41	8.90	6.35	3.57	1.49	0.42	56.28
Sc-high	0.99	1.26	2.41	5.22	8.98	11.16	10.60	10.03	7.15	3.99	1.62	0.42	63.83
Sc/ms	0.99	1.26	2.47	5.49	9.54	11.87	11.27	10.67	7.60	4.23	1.70	0.42	67.51
Sc/aw	0.99	1.26	2.44	5.34	9.24	11.48	10.91	10.32	7.36	4.10	1.66	0.42	65.52
Sc/ms/aw	0.99	1.26	2.67	5.62	9.51	11.79	11.20	10.59	7.57	4.76	2.04	0.45	68.45
Ms-low	0.99	1.26	2.31	4.22	6.71	8.23	7.81	7.39	5.28	3.48	1.61	0.43	49.72
Ms-high	0.99	1.26	2.63	5.44	8.71	10.34	9.82	9.30	6.64	4.26	2.07	0.54	62.00
Ms/aw	0.99	1.26	2.57	5.24	8.33	9.89	9.39	8.88	6.35	4.04	1.89	0.48	59.31
Aw	0.99	1.26	2.29	4.65	7.89	10.06	9.55	9.04	6.46	3.88	1.71	0.44	58.22
Cw	0.99	1.26	2.57	5.24	8.57	10.34	9.82	9.30	6.64	4.23	1.96	0.48	61.40
Low Veg	1.06	1.34	2.49	4.62	7.26	8.73	8.29	7.84	5.60	3.63	1.88	0.56	53.30

# Imperial Dam to Mexico

## Water-Balance Table

\* SEE for AAC Sta 1117 from Procedure for Estimating Measurement Accuracy for Surface Water flows by B.T. Wahlin, A.J. Clemmens, and J.A. Replogle. Proposed for Publication in the Journal of Irrigation and Drainage Engineering

2002 LCRAS	Sheet A, Page 2 of 3		2002		ANNUAL WATER BALANCE					
Imperial Dam to Mexico Water Balance Table										
<b>Final Results by Agricultural Diverter</b>					Undistributed		Undistributed	Distributed		
<u>Diverter</u>	Agricultural ET	Agricultural CU	Phreatophyte ET	Phreatophyte CU	Domestic Use	Domestic CU	Export	Export		
Desert Lawn Memorial, AZ	392	393	0	0						
FYIR, AZ & Homesteads	1,344	1,346	3,210	3,211						
FYIR Mittry SWA & YPG, AZ	0	0	775	775						
FYIR, CA	4,308	4,314	12,368	12,371						
FYIR Bard Unit, CA	23,931	23,964	862	862						
FYIR Indian Unit, CA	17,037	17,060	1,430	1,430						
FYIR & Picacho SRA, CA	0	0	4	4						
FYIR & YPG, CA	0	0	892	892						
Hillander "C" ID, AZ	6,472	6,481	0	0						
Imperial NWR, AZ	89	89	5,631	5,633						
Imperial NWR, CA	0	0	53	53						
Imperial NWR & YPG, CA	0	0	53	53						
Mittry Lake SWA, AZ	132	132	10,788	10,791						
North Cocopah IR, AZ	707	708	778	778						
North Gila Valley ID, AZ	20,919	20,947	2,480	2,481						
Picacho SR Lands, CA	0	0	129	129						
Sturges GM Ranch, AZ	6,966	6,975	864	864						
State of AZ	9,684	9,697	13,181	13,185						
State of AZ-Limitrophe	2,559	2,562	4,555	4,556						
State of AZ-DG from YMIDD	32,184	32,228	0	0						
State of CA	6,516	6,525	2,573	2,574						
Unit "B" IDD, AZ	7,323	7,333	0	0						
University AZ Ag Station, AZ	255	255	0	0						
West Cocopah IR, AZ	6,308	6,317	6,624	6,626						
Yuma Irrg. Dist., AZ	34,684	34,731	1,273	1,273						
Yuma Mesa IDD, AZ	74,327	74,428	0	0						
YPG, AZ	0	0	403	403						
YPG, CA	17	17	8,881	8,883						
Yuma County WUA, AZ	133,786	133,968	12	12						
Check Totals	389,940	390,470	77,819	77,839	0	0	0	0		

2002 LCRAS	Sheet A, Page 3 of 3		2002	ANNUAL WATER BALANCE					
Imperial Dam to Mexico Water Balance Table									
<b>Final Results by Domestic Diverter</b>					Undistributed		Undistributed	Distributed	
<u>Diverter</u>	Crop ET	Crop CU	Phreatophyte ET	Phreatophyte CU	Domestic Use	Domestic CU	Export	Export	
City of Yuma					18,187	18,188			
Yuma Proving Ground, AZ (2)					400	400			
Winterhaven, CA (3)					77	77			
Marine Corps Air Station, AZ					1,384	1,384			
Southern Pacific Railroad, AZ					29	29			
Yuma Mesa Fruit Growers, AZ					7	7			
USBR Yuma Area Office, AZ (4)					850	850			
APS Yucca Power Plant, AZ (5)					555	555			
Yuma Union High School					86	86			
Cocopah Bend RV Park, AZ (6)					204	204			
State Prison, AZ (7)					12	12			
-----					0	0			
Yuma (County), AZ(1)					7,778	7,779			
Bard, CA**					214	214			
Cocopah Indian Res., AZ					143	144			
Somerton, AZ					1,017	1,017			
Gadsden, AZ					133	133			
San Luis, AZ					2,145	2,145			
-----					0	0			
Check Totals	0	0	0	0	33,223	33,224	0	0	
<b>Final Results for Exports</b>									
<u>Export</u>									
AAC Sta 1117*							3,481,920	3,484,044	
Wellton-Mohawk (AVM)							425,887	426,147	
DPOC 1, 2, & 3; DW-1							57,766	57,801	
7, & 9 discharge into MODE									
Check Totals	0	0	0	0	0	0	3,965,573	3,967,992	

[illegible]

2002 LCRAS			Sheet C			2002 Qus, and Trm and Trm INFLOW COMPONENTS													
Imperial Dam to Mexico Water Balance Table																			
(Sheet to calculate the inflow components Qus, and Trm and Trm)																			
		January	February	March	April	May	June	July	August	September	October	November	December	Total					
(All values in acre-feet)																			
Qus, Flow at upstream boundary																			
Total		362034	422273	606631	686620	637348	598019	647445	569729	501282	458683	374947	316766	6,181,777					
Imperial Dam*																			
Station		from USGS Arizona District database and USBR AVM Records (see data files imp2mex.xls & 01st3avm.xls)																	
AAC, Station 60		295400	351400	465300	555100	476500	469000	521800	451300	382800	354800	303200	235400	4,862,000					
GGMC, Station 30 (AVM)		46655	49591	68323	88737	99709	96565	96216	88100	76298	70181	49434	38864	868,673					
Mittry Lake		799	722	738	833	799	774	799	799	774	922	893	922	9,774					
Colorado River Sluiceway		19180	20560	72270	41950	60340	31680	28630	29530	41410	32780	21420	41580	441,330					
-----		0	0	0	0	0	0	0	0	0	0	0	0	0					
* - Flow exiting dam is the total of measurements made at All-American Canal (AAC) Station 60, Gila Gravity Main Canal (GGMC) Station 30, Mittry Lake Diversion (Control Gate/Meter @ Headworks of GGMC), and Sluiceway (Colorado River Gauge below Imperial Dam).																			
Trm, Measured Tributary Inflow																			
Total		1670	1700	3210	1140	805	493	298	299	335	1200	793	1230	13,173					
Station		from USGS Arizona District database (see data file imp2mex.xls)																	
Gila River @ Dome		1670	1700	3210	1140	805	493	298	299	335	1200	793	1230	13,173					
Yuma Desalting Plant														0					
- Discharged to Colorado River																			
Trum, Unmeasured Tributary Inflow																			
Total		250	250	250	250	250	250	250	250	250	250	250	250	3,000					
Unmeasured runoff		pg. 46, USGS Water Supply Paper 2407																	
Yuma area		167	167	167	167	167	167	167	167	167	167	167	167	2,000					
		0	0	0	0	0	0	0	0	0	0	0	0	0					
		0	0	0	0	0	0	0	0	0	0	0	0	0					
Unmeasured runoff in tributary streams		pg. 46, USGS Water Supply Paper 2407																	
		0	0	0	0	0	0	0	0	0	0	0	0	0					
		0	0	0	0	0	0	0	0	0	0	0	0	0					
		0	0	0	0	0	0	0	0	0	0	0	0	0					
Ground-water discharge		pg. 46, USGS Water Supply Paper 2407																	
Gila River		83	83	83	83	83	83	83	83	83	83	83	83	1,000					
		0	0	0	0	0	0	0	0	0	0	0	0	0					
		0	0	0	0	0	0	0	0	0	0	0	0	0					



[illegible]

[illegible]

2002 LCRAS		Sheet F			2002	ETcrop OUTFLOW COMPONENT								
Imperial Dam to Mexico Water Balance Table														
(Sheet to calculate outflow component ETcrop)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
(All values in acre-feet)														
ETag, Agricultural Evapotranspiration														
Total	21995	27849	35515	43064	44269	43489	45687	42763	27192	23921	21673	12523	389,939	
Diverter														
Desert Lawn Memorial, AZ	20	24	32	19	46	53	56	52	39	15	23	13	392	
FYIR, AZ & Homesteads	90	120	168	198	141	91	69	62	84	136	148	35	1,344	
FYIR Mittry SWA & YPG, AZ	0	0	0	0	0	0	0	0	0	0	0	0	0	
FYIR, CA	263	327	407	547	545	522	514	469	188	210	213	104	4,308	
FYIR Bard Unit, CA	1295	1566	2062	2624	2801	2696	2872	2676	1651	1500	1465	722	23,931	
FYIR Indian Unit, CA	1336	1659	2009	2383	2013	1537	1554	1393	643	909	1019	580	17,037	
FYIR & Picacho SRA, CA	0	0	0	0	0	0	0	0	0	0	0	0	0	
FYIR & YPG, CA	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hillander "C" ID, AZ	557	675	631	480	555	597	638	593	470	429	485	363	6,472	
Imperial NWR, AZ	2	2	3	6	11	14	15	15	9	5	5	2	89	
Imperial NWR, CA	0	0	0	0	0	0	0	0	0	0	0	0	0	
Imperial NWR & YPG, CA	0	0	0	0	0	0	0	0	0	0	0	0	0	
Mittry Lake SWA, AZ	0	0	2	7	15	23	30	30	15	6	4	1	132	
North Cocopah IR, AZ	66	86	108	123	83	53	51	46	16	27	28	20	707	
North Gila Valley ID, AZ	949	1092	1484	2062	2236	2486	2903	2903	1905	1310	1134	455	20,919	
Picacho SR Lands, CA	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sturges GM Ranch, AZ	268	248	304	575	855	1042	1122	1118	649	355	278	153	6,966	
State of AZ	501	649	885	1049	1026	1105	1227	1150	683	580	525	303	9,684	
State of AZ-Limitrophe	119	159	201	263	315	324	345	324	167	134	132	75	2,559	
State of AZ-DG from YMIDD	1324	2000	2625	2906	3539	4022	4305	3991	2741	2186	1457	1087	32,184	
State of CA	446	578	676	720	571	624	661	609	430	463	426	313	6,516	
Unit "B" IDD, AZ	309	431	547	647	846	959	1020	943	600	455	326	239	7,323	
University AZ Ag Station, AZ	14	17	24	27	27	30	30	27	21	15	14	9	255	
West Cocopah IR, AZ	322	420	517	661	769	822	863	794	385	311	244	200	6,308	
Yuma Irrg. Dist., AZ	2059	2495	3033	4027	4175	3977	3867	3605	2150	2162	2143	991	34,684	
Yuma Mesa IDD, AZ	3348	4633	6086	6761	8150	9090	9558	8881	6498	5048	3679	2596	74,327	
YPG, AZ	0	0	0	0	0	0	0	0	0	0	0	0	0	
YPG, CA	0	0	0	1	3	3	4	3	1	1	1	0	17	
Yuma County WUA, AZ	8705	10669	13712	16978	15545	13420	13984	13077	7847	7662	7924	4263	133,786	
-----	0	0	0	0	0	0	0	0	0	0	0	0	0	



2002 LCRAS			Sheet H, Page 1 of 4				2002 E and Qds OUTFLOW COMPONENTS, and SEE of Qds									
Imperial Dam to Mexico Water Balance Table							(Sheet to calculate outflow components E and Qds)									
(All values in acre-feet)																
		January	February	March	April	May	June	July	August	September	October	November	December	Total		
Qds, Flow at Downstream Boundary*																
Total		150145	166327	222352	214188	128040	129756	134326	112069	119332	86030	110567	132289	1,705,424		
Station				(from International Boundary & Water Commission reports)												
Colorado River @ NIB (1)		132500	149500	205500	197200	110600	112600	117100	93680	99970	64160	89540	112900	1,485,250		
11 Mile Wasteway		1411	1208	839	339	639	532	815	337	1454	1507	1037	1414	11,532		
Cooper Wasteway		191	32	74	54	29	21	10	47	120	218	136	88	1,020		
21 Mile Wasteway		580	575	756	797	712	812	642	618	214	799	592	791	7,888		
Main Drain (inc. 242)		8211	7755	8036	8696	9016	8369	8200	9641	9931	11968	12056	9733	111,612		
W. Main Canal Drain		36	34	55	40	32	20	186	554	392	13	11	92	1,465		
E. Main Canal Drain		346	353	222	192	142	532	503	322	381	495	325	401	4,214		
Underflow to Mexico (2)		6870	6870	6870	6870	6870	6870	6870	6870	6870	6870	6870	6870	82,443		
* - Qds is the sum of all the individual flow stations listed																
(1) - From USGS Arizona District database																
(2) - Based on estimates from a Particle Tracking Study conducted by W. Greer of Reclamation's Yuma Area Office, see Attachment 5 of this report																
E, Open-Water Evaporation (Surface Evaporation = acres X ((evaporation - precipitation)/12)))																
Total		375	527	812	941	1128	1248	1348	1254	948	608	434	219	9,842		
Colorado River	acres	999	999	999	999	999	999	999	999	999	999	999	999	999		
	Ac-ft	244	343	528	612	734	812	877	816	617	396	282	143	6,403		
Mittry Lake	acres	442	442	442	442	442	442	442	442	442	442	442	442	442		
	Ac-ft	108	152	234	271	325	359	388	361	273	175	125	63	2,833		
PKPP Delivery to Mexico	acres	95	95	95	95	95	95	95	95	95	95	95	95	95		
	Ac-ft	23	32	50	58	70	77	83	77	58	37	27	14	606		
Note: PKPP Delivery to Mexico is the proportionate share of evaporation from water routed through the AAC and Pilot Knob Power Plant.																
Evaporation coefficient, monthly (From Jensen 2002)																
		0.85	0.96	1.03	1.04	1.03	1.03	1.04	1.04	1.02	0.99	0.87	0.75			
ETo, inches				(THESE VALUES FROM ANOTHER WORKSHEET)												
Yuma Area (averaged)		3.45	4.29	6.18	7.07	8.56	9.47	10.13	9.42	7.30	4.82	3.93	2.30	76.92		
Evaporation, inches (Evaporation = ETo X Evaporation coefficient)																
Yuma Area		2.93	4.12	6.37	7.35	8.82	9.75	10.54	9.80	7.45	4.77	3.42	1.73	77.03		
Precipitation, inches				(THESE VALUES FROM ANOTHER WORKSHEET)												
Yuma Area (averaged)		0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.03	0.01	0.12		

2002 LCRAS			Sheet H, Page 2 of 4			2002			E and Qds OUTFLOW COMPONENTS, and SEE of Qds					
Imperial Dam to Mexico Water Balance Table							(Sheet to calculate outflow components E and Qds)							
(All values in acre-feet)		January	February	March	April	May	June	July	August	September	October	November	December	Total
Open-Water Evaporation Within District and Shared Canal Evaporation (3)														
[added to Diversers Ag ET; Surface Evaporation = acres X ((evaporation - precipitation/12))]														
FYIR Bard Unit, CA	acres	28	28	28	28	28	28	28	28	28	28	28	28	
(see Sheet M)	Ac-ft	7	10	15	17	21	23	25	23	17	11	8	4	181
FYIR Indian Unit, CA	acres	20	20	20	20	20	20	20	20	20	20	20	20	
(see Sheet N)	Ac-ft	5	7	11	12	15	16	17	16	12	8	6	3	128
City of Yuma, AZ	acres	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	
(see Sheet E)	Ac-ft	3	4	7	8	9	10	11	10	8	5	4	2	80
Yuma County WUA, AZ	acres	294	294	294	294	294	294	294	294	294	294	294	294	
(see Sheet AK)	Ac-ft	72	101	155	180	216	239	258	240	181	116	83	42	1884
IID & CVWD, CA	acres	534	534	534	534	534	534	534	534	534	534	534	534	
(see Sheet D)	Ac-ft	130	183	282	327	392	434	468	436	329	211	151	76	3420
Pilot Knob PP & WW	acres	95	95	95	95	95	95	95	95	95	95	95	95	
(see this Sheet above)	Ac-ft	23	32	50	58	70	77	83	77	58	37	27	14	606
Yuma Proving Ground, AZ	acres	0	0	0	0	0	0	0	0	0	0	0	0	
(see Sheet AI)	Ac-ft	0	0	0	0	0	0	0	0	0	0	0	0	0
North Gila IDD, AZ	acres	5	5	5	5	5	5	5	5	5	5	5	5	
(see Sheet W)	Ac-ft	1	2	3	3	4	4	4	4	3	2	1	1	31
Sturges GM Ranch, AZ	acres	7	7	7	7	7	7	7	7	7	7	7	7	
(see Sheet Y)	Ac-ft	2	2	4	4	5	6	6	6	4	3	2	1	45
Wellton-Mohawk IDD, AZ	acres	122	122	122	122	122	122	122	122	122	122	122	122	
(see Sheet D)	Ac-ft	30	42	64	75	89	99	107	99	75	48	34	17	780
Yuma Irrg. Dist., AZ	acres	60	60	60	60	60	60	60	60	60	60	60	60	
(see Sheet AG)	Ac-ft	15	21	32	37	44	49	53	49	37	24	17	9	385
Yuma Mesa IDD, AZ	acres	185	185	185	185	185	185	185	185	185	185	185	185	
(see Sheet AH)	Ac-ft	45	63	98	113	136	150	162	151	114	73	52	26	1185
Unit "B" IDD, AZ	acres	20	20	20	20	20	20	20	20	20	20	20	20	
(see Sheet AD)	Ac-ft	5	7	11	12	15	16	17	16	12	8	6	3	128
											Total Yuma Area Canal Evap. =			6935
(3) - Open water area of larger canals, distribution laterals, and storage ponds which are distinguishable on 10 meter IRS imagery. Details on sheet H, pages 3 and 4 of 4.														

2002 LCRAS		Sheet H, Page 3 of 4				2002	E and Qds	OUTFLOW COMPONENTS,	and SEE of Qds								
Imperial Dam to Mexico Water Balance Table																	
All Values in Acre Feet.																	
<b>Shared (multi-user) canal evaporation calculation - All American Canal</b>																	
Total Open Water Surface (Acres) 1/														662			
* Note: only shaded cell values change yearly.																	
					1		2		3		4		5		6		
					POD Mileage		Diversion		Div. Miles		Open Water		Non-shared		Total Open		
					(mi)		(Ac-Ft)				Area		Canal Area		Water Area		
											(Ac)		(Ac)		(Ac)		
YUMA PROJECT																	
RESERVATION DIVISION																	
FYIR Bard Unit, CA					6.57		47221		310242		2.3		25.9		28.2		
													(.61*42.5)				
FYIR Indian Unit, CA					9.63		47084		453419		3.3		16.600		19.9		
													(.39*42.5)				
City of Yuma, AZ					14.70		23487		345262		2.5		9.700		12.2		
													(.207* 46.7)				
Yuma County WUA, AZ					14.70		239459		3520047		25.7		268.300		294.0		
													(231.2+.793*46.7)				
IID & CVWD, CA					2/	Export	21.02		3478500		73118070		533.6		533.6		
Pilot Knob PP & WW					3/	System loss	20.52		631700		12962484		94.6		94.6		
						Sums		4467451		90709525		662.0					
Footnotes:																	
1/ Open water acreage of the AAC digitized from 5 meter IRS imagery.																	
2/ Flow measured by the USGS at station 09527500, also known as station 1117+00 of the AAC.																	
3/ Flow measured by the USGS through the Pilot Knob Power Plant and Waste Way at station 09527000, also known as station 1093+92 of the AAC.																	
Water flows through the PKPP & WW into the River above Morelos dam, for satisfaction of Mexican deliveries.																	
For purposes of accounting, evaporation resulting from water diverted through the PKPP&WW will be																	
considered as system loss, just as such evaporation would be if the water was left in the mainstream.																	
* Another alternative would be to charge IID, since they are gaining use, however the evaporation is same.																	
Columns																	
1 - Point of Diversion Mileage is the distance in miles from Imperial dam to the turnout or the weighted average of turnouts of the User.																	
Weighted average calculated by multiplying the diversion measured at each turnout																	
by the distance of the turnout from Imperial dam divided by total measured diversions of the User. Calculated using CY2000 diversions.																	
2 - Diversion of each User at Imperial Dam.																	
Division at Imperial Dam as reported by the USGS or USBR in the annual Decree accounting report.																	
3 - Diversion - Miles is calculated by multiplying the Users diversion times canal miles between Imperial dam and																	
the user's average point of diversion.																	
4 - The portion of open water area, yielding evaporation, resulting from a users quantity of water in the Canal,																	
that should be charged against their entitlement.																	
Calculated as the diversion mileage for the user divided by the total diversion miles for all users times the total open water acreage of the canal.																	
5 - Portions of canals that lie fully within a district boundary and supply water to the district, includes some canal reaches that supply water to two																	
districts. In this case the acreage was pro-rated based on percentatge of flow to each district.																	
6 - The sum of shared and non- shared canal surface area, represents the sum of canal open water area for each district.																	
Bank to bank canal area calculated by screen digitizing over 5-meter resolution panchromatic IRS imagery.																	
Total of Shared AAC = 656.2 acres.																	
Yuma Main Canal between AAC and City of Yuma = 46.7																	
E & W main canals within YCWUA boundary = 231.2																	
Reservation Main Canal = 42.5																	

2002 LCRAS		Sheet H, Page 4 of 4			2002 E and Qds OUTFLOW COMPONENTS, and SEE of Qds							
Imperial Dam to Mexico Water Balance Table												
All Values in Acre Feet.												
<b>Shared (multi-user) canal evaporation calculation - Gila Gravity Main Canal</b>												
Total Open Water Surface (Acres)	1/									279		
* Note: only shaded cell values change yearly.												
			1		2		3		4		5	6
			POD Mileage (mi)		Diversion (Ac-Ft)		Div. Miles		Open Water Area (Ac)		Non-shared Canal Area (Ac)	Total Open Water Area (Ac)
Yuma Proving Ground, AZ			2.60		15		38		0.0			0.0
North Gila IDD, AZ			8.45		19935		168451		4.8			4.8
Sturges GM Ranch, AZ			13.57		18039		244789		7.0			7.0
Wellton-Mohawk IDD, AZ	2/	Export	15.26		280559		4281330		121.7			121.7
Yuma Irrig District, AZ			19.75		50489		997158		28.4		31.66	60.0
City of Yuma, AZ			21.02		539		11330		0.3		0.00	0.3
Yuma Mesa IDD, AZ			21.02		174519		3668389		104.3		80.64	184.9
Unit "B" IDD, AZ			21.02		20980		441000		12.5		7.36	19.9
				Sums	565075		9812485		279.00		(.114*64.38)	
Footnotes:												
1/ Open water acreage of the GGMC digitized from 5 meter IRS imagery.												
2/ GS measured flow near headworks of Wellton-Mohawk canal.												
Columns												
1 - Point of Diversion Mileage is the distance in miles from Imperial dam to the turnout or the weighted average of turnouts of the User.												
Weighted average calculated by multiplying the diversion measured at each turnout												
by the distance of the turnout from Imperial dam divided by total measured diversions of the User. Calculated using 2000 diversions.												
2 - Diversion of each User at Imperial Dam.												
Diversion at Imperial Dam as reported by the USGS or USBR in the annual Decree accounting report.												
3 - Diversion - Miles is calculated by multiplying the Users diversion times canal miles between Imperial dam and												
the user's average point of diversion.												
4 - The portion of open water area, yielding evaporation, resulting from a users quantity of water in the Canal,												
that should be charged against their entitlement.												
Calculated as the diversion mileage for the user divided by the total diversion miles for all users times the total open water acreage of the canal.												
5 - Portions of canals that lie fully within a district boundary and supply water to the district, includes some canal reaches that supply water to two districts. In this case the acreage was pro-rated based on percentatge of flow to each district.												
6 - The sum of shared and non- shared canal surface area, represents the sum of canal open water area for each district.												
Bank to bank canal area calculated by screen digitizing over 5-meter resolution panchromatic IRS imagery.												
Total of Shared GGMC = 224.88 acres.												
Canal within YID = 31.66												
Canal within YMID = 23.56												
Portion of Yuma Mesa Canal that delivers water to YMID and Unit B = 64.38												



[illegible]

[illegible]

2002 LCRAS	Sheet I, Page 3 of 5			2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table												
(Sheet to calculate ET for Desert Lawn Memorial Park, AZ)												
	January	February	March	April	May	June	July	August	September	October	November	December
Desert Lawn Memorial, AZ												
Acreages (acres)												
Total Agricultural Acres *	79	79	79	79	79	79	79	79	79	79	79	79
Alfalfa-perennial	0	0	0	0	0	0	0	0	0	0	0	0
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0
Cotton	0	0	0	0	0	0	0	0	0	0	0	0
Small Grain	0	0	0	0	0	0	0	0	0	0	0	0
Field Grain	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce-early	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce-late	0	0	0	0	0	0	0	0	0	0	0	0
Melons-spring	0	0	0	0	0	0	0	0	0	0	0	0
Melons-fall	0	0	0	0	0	0	0	0	0	0	0	0
Bermuda	0	0	0	0	0	0	0	0	0	0	0	0
Bermuda w/ rye	79	79	79	79	79	79	79	79	79	79	79	79
Citrus-young	0	0	0	0	0	0	0	0	0	0	0	0
Citrus-mature	0	0	0	0	0	0	0	0	0	0	0	0
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	0	0	0	0	0	0	0	0	0	0	0	0
Legume/Solanum Veg	0	0	0	0	0	0	0	0	0	0	0	0
Crucifers	0	0	0	0	0	0	0	0	0	0	0	0
Dates	0	0	0	0	0	0	0	0	0	0	0	0
Safflower	0	0	0	0	0	0	0	0	0	0	0	0
Orchards	0	0	0	0	0	0	0	0	0	0	0	0
Small Vegetables	0	0	0	0	0	0	0	0	0	0	0	0
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0
Grapes	0	0	0	0	0	0	0	0	0	0	0	0
Herbs-(miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0
* - Static, year to year acreage for cemetery park, unless size of park changes. Bermuda overseeded with rye grass in winter.												

[illegible]

2002 LCRAS	Sheet I, Page 5 of 5		2002 TOTAL DIVERTER ET										
Imperial Dam to Mexico Water Balance Table			(Sheet to calculate ET for Desert Lawn Memorial Park, AZ)										
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]

2002 LCRAS	Sheet J, Page 2 of 5			2002 TOTAL DIVERTER ET														
Imperial Dam to Mexico Water Balance Table																		
(Sheet to calculate ET for the Fort Yuma Indian Reservation [FYIR], AZ & Homesteads)																		
(All values in acre-feet)																		
	January	February	March	April	May	June	July	August	September	October	November	December	Total					
FYIR, AZ & Homesteads																		
Monthly ET values																		
Marsh	1	1	3	5	6	7	7	7	5	2	1	0	43					
Barren	68	85	95	61	70	77	83	77	59	43	51	40	809					
Sc-low	4	5	8	15	27	33	35	33	25	13	6	2	205					
Sc-high	6	7	14	27	46	54	57	53	41	21	9	2	338					
Sc/ms	9	12	23	46	78	91	98	91	70	37	15	4	574					
Sc/aw	1	2	3	6	10	12	13	12	9	5	2	1	76					
Sc/ms/aw	0	1	1	2	4	4	4	4	3	2	1	0	26					
Ms-low	6	7	14	22	35	40	43	40	31	19	9	3	270					
Ms-high	2	3	6	12	18	20	22	20	16	9	5	1	136					
Ms/aw	1	1	1	2	4	4	4	4	3	2	1	0	27					
Aw	2	3	5	10	16	19	20	19	15	8	4	1	122					
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0					
Low Veg	13	16	30	49	76	86	92	85	66	40	22	7	582					

[illegible]



[illegible]



[illegible]

2002 LCRAS	Sheet K, Page 2 of 5		2002 TOTAL DIVERTER ET										
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Fort Yuma Indian Reservation [FYIR] Mittry State Wildlife Area [SWA] & YPG, AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
FYIR Mittry SWA & YPG, AZ													
Monthly ET values													
Marsh	1	2	7	12	15	16	17	16	12	4	1	1	105
Barren	0	1	1	0	0	1	1	1	0	0	0	0	6
Sc-low	0	1	1	2	3	4	4	4	3	1	1	0	22
Sc-high	8	10	19	37	63	74	79	73	57	29	13	3	465
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	1	1	2	4	6	7	8	7	5	3	2	0	47
Ms-high	1	1	2	4	7	7	8	7	6	3	2	0	49
Ms/aw	0	0	1	1	2	2	2	2	1	1	0	0	12
Aw	1	1	2	3	5	6	6	6	4	3	1	0	37
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	1	1	2	3	4	4	5	4	3	2	1	0	30



[illegible]



2002 LCRAS	Sheet L, Page 1 of 5			2002		TOTAL DIVERTER ET							
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Fort Yuma Indian Reservation [FYIR], CA)													
(Based on average ETo values from 3 Yuma Area AZMET stations, and average precipitation from Yuma Area AZMET and NWS stations)													
(ET's for each crop/phreatophyte are calculated in filename Ymarea01.xlw)													
(All values in acre-feet)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Total Agricultural ET	263	327	407	547	545	522	514	469	188	210	213	104	4,308
On-District Open-Water Evap.													
FYIR, CA	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Phreatophyte ET													
FYIR, CA	313	391	637	998	1583	1845	1974	1835	1420	796	420	154	12368
Monthly ET values													
Alfalfa-perennial	3	5	6	6	8	9	10	9	6	5	3	3	72
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0
Cotton	0	0	9	18	33	64	98	105	71	16	0	0	415
Small Grain	143	217	312	306	114	0	0	0	0	0	0	35	1127
Field Grain	0	2	8	18	23	17	0	0	0	0	0	0	68
Lettuce-early	0	0	0	0	0	0	0	0	97	168	179	0	445
Lettuce-late	91	64	0	0	0	0	0	0	0	0	0	45	200
Melons-spring	0	5	9	12	13	0	0	0	0	0	0	0	40
Melons-fall	0	0	0	0	0	0	0	0	0	0	0	0	0
Bermuda	0	0	0	0	0	0	0	0	0	0	0	0	0
Bermuda w/ rye	0	0	0	0	0	0	0	0	0	0	0	0	0
Citrus-young	0	0	0	0	0	0	0	0	0	0	0	0	0
Citrus-mature	0	0	0	0	0	0	0	0	0	0	0	0	0
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	0	0	0	102	288	367	393	353	0	0	0	0	1504
Legume/Solanum Veg	0	0	0	0	0	0	0	0	0	0	0	0	0
Crucifers	6	0	0	0	0	0	0	0	12	11	17	11	57
Dates	1	1	1	1	2	2	2	2	1	1	1	0	15
Safflower	0	10	28	50	64	64	11	0	0	0	0	0	226
Orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Vegetables	19	24	34	33	0	0	0	0	0	7	13	11	141
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0	0
Grapes	0	0	0	0	0	0	0	0	0	0	0	0	0
Herbs-(miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0	0
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0	0
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0	0



2002 LCRAS			Sheet L, Page 2 of 5				2002		TOTAL DIVERTER ET											
Imperial Dam to Mexico Water Balance Table																				
(Sheet to calculate ET for the Fort Yuma Indian Reservation [FYIR], CA)																				
(All values in acre-feet)																				
	January	February	March	April	May	June	July	August	September	October	November	December	Total							
FYIR, CA																				
Monthly ET values																				
Marsh	3	4	16	29	35	39	42	39	30	10	3	2	252							
Barren	96	119	133	85	98	109	116	108	83	60	72	56	1134							
Sc-low	53	66	105	201	352	428	458	426	330	173	76	21	2690							
Sc-high	24	29	56	109	184	215	230	214	165	86	37	10	1358							
Sc/ms	23	29	56	112	190	222	238	221	171	89	37	9	1396							
Sc/aw	10	12	23	46	78	91	97	90	70	36	15	4	572							
Sc/ms/aw	2	3	6	11	17	20	22	20	16	9	4	1	131							
Ms-low	8	10	19	30	47	54	58	54	42	26	13	3	365							
Ms-high	3	4	8	15	23	26	28	26	20	12	6	2	174							
Ms/aw	3	3	7	12	19	21	23	21	16	10	5	1	140							
Aw	13	17	30	55	91	109	117	109	84	47	22	6	699							
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0							
Low Veg	76	95	177	294	450	511	546	508	393	238	130	39	3457							

[illegible]

[illegible]

2002 LCRAS	Sheet L, Page 5 of 5												2002 TOTAL DIVERTER ET						
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the Fort Yuma Indian Reservation [FYIR], CA)															
Monthly ET values, inches (from Ymarea01.xlw)																			
	January	February	March	April	May	June	July	August	September	October	November	December	Total						
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61						
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91						
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87						
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59						
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88						
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68						
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27						
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26						
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80						
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80						
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66						
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57						
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94						
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61						
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62						
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80						
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85						
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38						
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23						
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56						
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19						
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90						
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28						
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57						
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01						
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86						
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92						
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38						
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24						
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39						
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92						
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48						
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94						
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67						
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43						
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40						
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49						
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33						
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89						
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13						
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00						
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27						
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01						

2002 LCRAS		Sheet M, Page 1 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table														
(Sheet to calculate ET for the Fort Yuma Indian Reservation's [FYIR] Bard Unit, CA)														
(Based on average ETo values from 3 Yuma Area AZMET stations, and average precipitation from Yuma Area AZMET and NWS stations)														
(ET's for each crop/phreatophyte are calculated in filename Ymarea01.xlw)														
(All values in acre-feet)	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Total Agricultural ET	1295	1566	2062	2624	2801	2696	2872	2676	1651	1500	1465	722	23,931	
On-District Open-Water Evap.														
FYIR Bard Unit, CA	7	10	15	17	21	23	25	23	17	11	8	4	181	
Total Phreatophyte ET														
FYIR Bard Unit, CA	17	21	38	70	114	133	143	133	103	57	27	8	862	
Monthly ET values														
Alfalfa-perennial	36	58	72	77	95	112	120	111	80	68	42	33	902	
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0	
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cotton	0	0	33	67	121	233	358	385	258	60	0	0	1514	
Small Grain	514	779	1121	1100	408	0	0	0	0	0	0	125	4049	
Field Grain	0	11	49	111	143	104	0	0	0	0	0	0	418	
Lettuce-early	0	0	0	0	0	0	0	0	405	700	744	0	1850	
Lettuce-late	293	206	0	0	0	0	0	0	0	0	0	144	643	
Melons-spring	0	57	98	129	146	0	0	0	0	0	0	0	429	
Melons-fall	0	0	0	0	0	0	0	0	12	13	12	7	44	
Bermuda	0	0	0	0	1	1	1	1	1	0	0	0	5	
Bermuda w/ rye	0	0	0	0	0	0	0	0	0	0	0	0	0	
Citrus-young	7	9	12	13	16	17	18	17	13	9	8	5	145	
Citrus-mature	101	121	167	183	211	227	243	226	179	126	110	69	1963	
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sudan	0	0	0	360	1019	1297	1388	1248	0	0	0	0	5312	
Legume/Solanum Veg	6	7	4	0	0	0	0	0	0	2	4	4	26	
Crucifers	94	0	0	0	0	0	0	0	173	161	242	154	824	
Dates	204	267	428	502	606	668	710	657	507	333	269	157	5309	
Safflower	0	1	3	5	7	7	1	0	0	0	0	0	25	
Orchards	1	2	3	5	7	8	9	8	6	4	3	1	59	
Small Vegetables	32	40	56	54	0	0	0	0	0	12	22	18	234	
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0	
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grapes	0	0	0	0	0	0	0	0	0	0	0	0	0	
Herbs-(miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0	0	

2002 LCRAS			Sheet M, Page 2 of 5				2002		TOTAL DIVERTER ET											
Imperial Dam to Mexico Water Balance Table																				
(Sheet to calculate ET for the Fort Yuma Indian Reservation's [FYIR] Bard Unit, CA)																				
(All values in acre-feet)																				
	January	February	March	April	May	June	July	August	September	October	November	December	Total							
FYIR Bard Unit, CA																				
Monthly ET values																				
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0							
Barren	1	1	1	1	1	1	1	1	1	1	1	1	11							
Sc-low	4	5	7	14	25	30	32	30	23	12	5	2	189							
Sc-high	5	6	12	24	40	47	50	47	36	19	8	2	298							
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0	0							
Sc/aw	1	1	2	5	8	10	10	9	7	4	2	0	60							
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0							
Ms-low	2	2	4	6	9	10	11	10	8	5	2	1	70							
Ms-high	3	4	8	15	23	26	28	26	20	12	6	2	174							
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0							
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0							
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0							
Low Veg	1	2	3	5	8	9	9	9	7	4	2	1	60							

2002 LCRAS		Sheet M, Page 3 of 5				2002 TOTAL DIVERTER ET							
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Fort Yuma Indian Reservation's [FYIR] Bard Unit, CA)													
	January	February	March	April	May	June	July	August	September	October	November	December	
FYIR Bard Unit, CA													
Acreages (acres)													
Total Agricultural Acres	10279	10279	10279	10279	10279	10279	10279	10279	10279	10279	10279	10279	
Alfalfa-perennial	160.03	160.03	160.03	160.03	160.03	160.03	160.03	160.03	160.03	160.03	160.03	160.03	
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	
Cotton	436.95	436.95	436.95	436.95	436.95	436.95	436.95	436.95	436.95	436.95	436.95	436.95	
Small Grain	1952.79	1952.79	1952.79	1952.79	1952.79	1952.79	1952.79	1952.79	1952.79	1952.79	1952.79	1952.79	
Field Grain	168.96	168.96	168.96	168.96	168.96	168.96	168.96	168.96	168.96	168.96	168.96	168.96	
Lettuce-early	2394.68	2394.68	2394.68	2394.68	2394.68	2394.68	2394.68	2394.68	2394.68	2394.68	2394.68	2394.68	
Lettuce-late	1063.33	1063.33	1063.33	1063.33	1063.33	1063.33	1063.33	1063.33	1063.33	1063.33	1063.33	1063.33	
Melons-spring	216.42	216.42	216.42	216.42	216.42	216.42	216.42	216.42	216.42	216.42	216.42	216.42	
Melons-fall	38.35	38.35	38.35	38.35	38.35	38.35	38.35	38.35	38.35	38.35	38.35	38.35	
Bermuda	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	
Bermuda w/ rye	0	0	0	0	0	0	0	0	0	0	0	0	
Citrus-young	62.17	62.17	62.17	62.17	62.17	62.17	62.17	62.17	62.17	62.17	62.17	62.17	
Citrus-mature	505.26	505.26	505.26	505.26	505.26	505.26	505.26	505.26	505.26	505.26	505.26	505.26	
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0	
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	
Sudan	1453.59	1453.59	1453.59	1453.59	1453.59	1453.59	1453.59	1453.59	1453.59	1453.59	1453.59	1453.59	
Legume/Solanum Veg	18.94	18.94	18.94	18.94	18.94	18.94	18.94	18.94	18.94	18.94	18.94	18.94	
Crucifers	808.84	808.84	808.84	808.84	808.84	808.84	808.84	808.84	808.84	808.84	808.84	808.84	
Dates	866.08	866.08	866.08	866.08	866.08	866.08	866.08	866.08	866.08	866.08	866.08	866.08	
Safflower	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	
Orchards	12.21	12.21	12.21	12.21	12.21	12.21	12.21	12.21	12.21	12.21	12.21	12.21	
Small Vegetables	111.19	111.19	111.19	111.19	111.19	111.19	111.19	111.19	111.19	111.19	111.19	111.19	
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0	
Grapes	0	0	0	0	0	0	0	0	0	0	0	0	
Herbs-(miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0	
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0	
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0	

[illegible]





[illegible]

2002 LCRAS	Sheet N, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Fort Yuma Indian Reservation's [FYIR] Indian Unit, CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
FYIR Indian Unit, CA													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	8	10	12	7	8	9	10	9	7	5	6	5	98
Sc-low	5	7	11	21	36	44	47	44	34	18	8	2	276
Sc-high	14	18	34	67	112	131	140	130	101	52	22	6	828
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0	2
Sc/aw	1	1	2	4	7	8	9	8	6	3	1	0	51
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	1
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	0	0	1	1	2	2	2	2	1	1	0	0	12
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	4	4	8	14	21	24	26	24	18	11	6	2	162

[illegible]

[illegible]



[illegible]

[illegible]



[illegible]

[illegible]



[illegible]

2002 LCRAS	Sheet P, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Fort Yuma Indian Reservation [FYIR] & Yuma Proving Ground [YPG], CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
FYIR & YPG, CA													
Monthly ET values													
Marsh	1	1	4	8	10	11	11	11	8	3	1	1	69
Barren	3	4	5	3	4	4	4	4	3	2	3	2	41
Sc-low	3	3	5	10	18	21	23	21	16	9	4	1	134
Sc-high	4	5	11	20	34	40	43	40	31	16	7	2	254
Sc/ms	2	3	5	10	17	20	21	20	15	8	3	1	126
Sc/aw	2	2	5	9	16	18	20	18	14	7	3	1	116
Sc/ms/aw	1	1	2	4	7	8	9	8	6	4	2	0	52
Ms-low	0	0	1	1	1	2	2	2	1	1	0	0	11
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	1	1	2	4	4	4	4	3	2	1	0	26
Aw	0	0	1	2	3	3	4	3	3	1	1	0	21
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	1	1	2	4	6	6	7	6	5	3	2	0	42

[illegible]

[illegible]





[illegible]

[illegible]

[illegible]

[illegible]

2002 LCRAS	Sheet Q, Page 5 of 5		2002 TOTAL DIVERTER ET													
Imperial Dam to Mexico Water Balance Table			(Sheet to calculate ET for the Hillander "C" Irrigation District (ID), AZ)													
Monthly ET values, inches (from Ymarea01.xlw)																
	January	February	March	April	May	June	July	August	September	October	November	December	Total			
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61			
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91			
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87			
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59			
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88			
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68			
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27			
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26			
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80			
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80			
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66			
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57			
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94			
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61			
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62			
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80			
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85			
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38			
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23			
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56			
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19			
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90			
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28			
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57			
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01			
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86			
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92			
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38			
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24			
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39			
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92			
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48			
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94			
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67			
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43			
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40			
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49			
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33			
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89			
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13			
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00			
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27			
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01			

[illegible]

2002 LCRAS	Sheet R, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Imperial National Wildlife Refuge [NWR], AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Imperial NWR, AZ													
Monthly ET values													
Marsh	19	24	102	181	219	242	259	241	185	63	21	12	1570
Barren	18	22	24	16	18	20	21	20	15	11	13	10	208
Sc-low	16	20	32	62	108	132	141	131	101	53	23	7	827
Sc-high	9	12	23	44	74	86	92	86	66	35	15	4	545
Sc/ms	9	11	22	43	73	86	92	85	66	34	14	4	538
Sc/aw	5	6	12	23	40	46	50	46	36	19	8	2	292
Sc/ms/aw	4	5	12	22	36	42	45	42	32	19	9	2	271
Ms-low	5	7	13	21	32	37	40	37	29	18	9	2	248
Ms-high	2	2	5	9	14	15	16	15	12	7	4	1	102
Ms/aw	5	6	13	24	37	41	44	41	32	19	9	2	276
Aw	9	11	20	37	61	73	78	73	56	32	15	4	469
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	6	8	15	24	37	42	45	42	33	20	11	3	287

[illegible]



[illegible]

2002 LCRAS	Sheet R, Page 5 of 5		2002 TOTAL DIVERTER ET										
Imperial Dam to Mexico Water Balance Table	(Sheet to calculate ET for the Imperial National Wildlife Refuge [NWR], AZ)												
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]

[illegible]

[illegible]

[illegible]

2002 LCRAS	Sheet S, Page 5 of 5		2002 TOTAL DIVERTER ET												
Imperial Dam to Mexico Water Balance Table			(Sheet to calculate ET for Imperial National Wildlife Refuge [NWR], CA)												
Monthly ET values, inches (from Ymarea01.xlw)															
	January	February	March	April	May	June	July	August	September	October	November	December	Total		
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61		
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91		
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87		
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59		
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88		
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68		
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27		
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26		
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80		
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80		
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66		
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57		
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94		
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61		
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62		
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80		
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85		
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38		
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23		
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56		
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19		
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90		
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28		
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57		
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01		
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86		
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92		
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38		
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24		
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39		
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92		
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48		
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94		
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67		
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43		
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40		
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49		
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33		
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89		
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13		
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00		
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27		
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01		

[illegible]



[illegible]

[illegible]

[illegible]

2002 LCRAS	Sheet T, Page 5 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for Imperial National Wildlife Refuge [NWR] & Yuma Proving Ground [YPG], CA)									
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]

2002 LCRAS	Sheet U, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Mittry Lake State Wildlife Area [SWA], AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Mittry Lake SWA, AZ													
Monthly ET values													
Marsh	12	15	64	113	137	152	162	151	116	39	13	8	982
Barren	3	4	4	3	3	4	4	4	3	2	2	2	38
Sc-low	20	25	40	75	132	161	172	160	124	65	29	8	1009
Sc-high	52	65	125	243	408	477	510	475	367	191	82	21	3017
Sc/ms	22	27	53	105	178	209	224	208	161	84	35	9	1314
Sc/aw	15	19	37	73	123	144	154	143	110	57	24	6	905
Sc/ms/aw	6	7	16	29	48	56	60	56	43	25	11	3	362
Ms-low	16	20	37	60	93	107	115	107	83	51	25	7	718
Ms-high	4	5	11	21	32	36	39	36	28	17	9	2	239
Ms/aw	16	19	40	72	112	126	134	125	97	58	28	7	834
Aw	24	30	56	101	167	201	215	200	155	87	40	10	1288
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	2	2	4	7	11	12	13	12	9	6	3	1	83

[illegible]

[illegible]



2002 LCRAS	Sheet U, Page 5 of 5												2002 TOTAL DIVERTER ET						
Imperial Dam to Mexico Water Balance Table	(Sheet to calculate ET for the Mittry Lake State Wildlife Area [SWA], AZ)																		
Monthly ET values, inches (from Ymarea01.xlw)																			
	January	February	March	April	May	June	July	August	September	October	November	December	Total						
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61						
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91						
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87						
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59						
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88						
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68						
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27						
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26						
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80						
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80						
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66						
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57						
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94						
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61						
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62						
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80						
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85						
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38						
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23						
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56						
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19						
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90						
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28						
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57						
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01						
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86						
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92						
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38						
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24						
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39						
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92						
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48						
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94						
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67						
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43						
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40						
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49						
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33						
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89						
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13						
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00						
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27						
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01						

[illegible]

2002 LCRAS	Sheet V, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for North Cocopah Indian Reservation [IR], AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
North Cocopah IR, AZ													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	2	3	3	2	2	2	3	2	2	1	2	1	26
Sc-low	7	9	14	27	47	57	61	57	44	23	10	3	361
Sc-high	2	2	4	8	13	15	16	15	12	6	3	1	95
Sc/ms	2	3	5	10	17	20	22	20	15	8	3	1	126
Sc/aw	0	1	1	2	3	4	4	4	3	2	1	0	25
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	3	4	7	12	19	21	23	21	17	10	5	2	145

[illegible]

[illegible]

2002 LCRAS	Sheet V, Page 5 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for North Cocopah Indian Reservation [IR], AZ)									
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]

2002 LCRAS	Sheet W, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the North Gila Valley Irrigation District [ID], AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
North Gila Valley ID, AZ													
Monthly ET values													
Marsh	3	4	16	28	34	38	41	38	29	10	3	2	246
Barren	7	8	9	6	7	8	8	8	6	4	5	4	80
Sc-low	6	7	12	22	39	47	50	47	36	19	8	2	295
Sc-high	3	3	7	13	22	25	27	25	20	10	4	1	160
Sc/ms	6	8	15	30	50	59	63	59	45	24	10	2	371
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	1
Sc/ms/aw	1	1	2	4	7	8	8	8	6	3	2	0	49
Ms-low	2	3	5	8	12	14	15	14	11	7	3	1	95
Ms-high	6	8	16	29	46	51	55	51	40	24	12	3	341
Ms/aw	2	3	6	11	17	19	21	19	15	9	4	1	130
Aw	3	4	8	14	23	28	30	28	21	12	6	1	179
Cw	0	0	0	1	1	1	2	1	1	1	0	0	9
Low Veg	12	14	27	44	68	77	83	77	60	36	20	6	524



[illegible]

[illegible]

2002 LCRAS	Sheet W, Page 5 of 5												2002 TOTAL DIVERTER ET						
Imperial Dam to Mexico Water Balance Table	(Sheet to calculate ET for the North Gila Valley Irrigation District [ID], AZ)																		
Monthly ET values, inches (from Ymarea01.xlw)																			
	January	February	March	April	May	June	July	August	September	October	November	December	Total						
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61						
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91						
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87						
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59						
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88						
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68						
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27						
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26						
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80						
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80						
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66						
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57						
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94						
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61						
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62						
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80						
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85						
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38						
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23						
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56						
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19						
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90						
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28						
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57						
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01						
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86						
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92						
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38						
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24						
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39						
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92						
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48						
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94						
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67						
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43						
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40						
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49						
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33						
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89						
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13						
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00						
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27						
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01						

[illegible]

2002 LCRAS	Sheet X, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Picacho State Recreation [SR] Lands, CA)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Picacho SR Lands, CA													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc-low	0	0	0	1	2	2	2	2	1	1	0	0	12
Sc-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms	0	0	1	1	2	2	3	2	2	1	0	0	16
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	2	3	5	9	13	15	16	15	11	7	4	1	101

[illegible]

[illegible]

2002 LCRAS	Sheet X, Page 5 of 5												2002 TOTAL DIVERTER ET						
Imperial Dam to Mexico Water Balance Table	(Sheet to calculate ET for the Picacho State Recreation [SR] Lands, CA)																		
Monthly ET values, inches (from Ymarea01.xlw)																			
	January	February	March	April	May	June	July	August	September	October	November	December	Total						
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61						
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91						
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87						
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59						
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88						
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68						
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27						
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26						
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80						
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80						
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66						
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57						
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94						
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61						
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62						
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80						
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85						
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38						
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23						
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56						
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19						
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90						
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28						
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57						
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01						
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86						
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92						
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38						
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24						
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39						
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92						
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48						
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94						
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67						
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43						
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40						
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49						
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33						
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89						
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13						
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00						
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27						
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01						



[illegible]

2002 LCRAS	Sheet Y, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Sturges Gila Monster [GM] Ranch, AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Sturges GM Ranch, AZ													
Monthly ET values													
Marsh	6	8	33	59	71	79	84	78	60	20	7	4	509
Barren	0	0	0	0	0	0	0	0	0	0	0	0	3
Sc-low	1	1	2	4	6	8	8	8	6	3	1	0	48
Sc-high	2	2	5	9	15	18	19	18	14	7	3	1	113
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/aw	0	0	0	0	1	1	1	1	0	0	0	0	4
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	4	5	10	16	24	27	29	27	21	13	7	2	185

[illegible]

[illegible]

2002 LCRAS	Sheet Y, Page 5 of 5												2002 TOTAL DIVERTER ET						
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the Sturges Gila Monster [GM] Ranch, AZ)															
Monthly ET values, inches (from Ymarea01.xlw)																			
	January	February	March	April	May	June	July	August	September	October	November	December	Total						
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61						
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91						
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87						
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59						
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88						
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68						
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27						
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26						
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80						
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80						
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66						
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57						
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94						
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61						
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62						
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80						
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85						
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38						
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23						
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56						
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19						
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90						
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28						
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57						
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01						
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86						
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92						
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38						
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24						
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39						
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92						
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48						
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94						
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67						
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43						
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40						
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49						
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33						
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89						
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13						
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00						
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27						
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01						



2002 LCRAS	Sheet Z, Page 2 of 5				2002	TOTAL DIVERTER ET							
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the State of Arizona [AZ])													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
State of AZ													
Monthly ET values													
Marsh	14	17	71	126	153	169	181	168	129	44	15	9	1094
Barren	48	60	67	43	49	55	59	54	42	30	36	28	573
Sc-low	37	46	74	141	247	300	322	299	231	121	53	15	1888
Sc-high	45	56	108	210	353	413	441	410	317	165	71	18	2607
Sc/ms	37	46	91	182	309	362	387	360	278	145	61	15	2272
Sc/aw	23	29	56	110	187	219	234	218	168	88	37	9	1378
Sc/ms/aw	4	5	10	19	32	37	40	37	29	17	8	2	240
Ms-low	7	8	15	25	38	44	47	44	34	21	10	3	295
Ms-high	8	10	22	40	63	71	75	70	54	33	17	4	468
Ms/aw	10	13	26	48	74	83	89	82	64	38	19	5	550
Aw	6	8	14	26	43	51	55	51	39	22	10	3	327
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	33	41	76	126	194	220	235	219	169	103	56	17	1488

[illegible]



[illegible]

2002 LCRAS	Sheet Z, Page 5 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table					(Sheet to calculate ET for the State of Arizona [AZ])								
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]

2002 LCRAS	Sheet AA, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the State of Arizona [AZ]-Limitrophe)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
State of AZ-Limitrophe													
Monthly ET values													
Marsh	0	0	2	3	3	4	4	4	3	1	0	0	25
Barren	8	9	10	7	8	9	9	8	7	5	6	4	89
Sc-low	34	42	68	129	227	276	295	274	212	111	49	14	1732
Sc-high	9	12	22	43	72	84	90	84	65	34	14	4	533
Sc/ms	7	9	18	35	59	69	74	69	53	28	12	3	436
Sc/aw	4	5	10	19	33	38	41	38	30	15	7	2	243
Sc/ms/aw	0	0	1	2	3	3	3	3	2	1	1	0	20
Ms-low	5	6	12	20	30	35	38	35	27	17	8	2	235
Ms-high	3	4	8	16	24	27	29	27	21	13	6	2	181
Ms/aw	5	6	13	23	36	40	43	40	31	18	9	2	267
Aw	4	5	10	18	29	35	38	35	27	15	7	2	226
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	13	16	29	48	74	84	90	83	65	39	21	6	568

[illegible]

[illegible]

2002 LCRAS	Sheet AA, Page 5 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the State of Arizona [AZ]-Limitrophe)									
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]



[illegible]

[illegible]

[illegible]

2002 LCRAS	Sheet AB, Page 5 of 5		2002 TOTAL DIVERTER ET													
Imperial Dam to Mexico Water Balance Table			(Sheet to calculate ET for the State of Arizona [AZ]-DG from YMIDD [Downgradient of Yuma Mesa Irrigation & Drainage District])													
Monthly ET values, inches (from Ymarea01.xlw)																
	January	February	March	April	May	June	July	August	September	October	November	December	Total			
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61			
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91			
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87			
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59			
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88			
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68			
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27			
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26			
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80			
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80			
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66			
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57			
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94			
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61			
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62			
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80			
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85			
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38			
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23			
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56			
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19			
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90			
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28			
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57			
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01			
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86			
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92			
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38			
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24			
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39			
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92			
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48			
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94			
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67			
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43			
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40			
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49			
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33			
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89			
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13			
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00			
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27			
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01			

2002 LCRAS		Sheet AC, Page 1 of 5			2002		TOTAL DIVERTER ET							
Imperial Dam to Mexico Water Balance Table														
(Sheet to calculate ET for the State of California [CA])														
(Based on average ETo values from 3 Yuma Area AZMET stations, and average precipitation from Yuma Area AZMET and NWS stations)														
(ET's for each crop/phreatophyte are calculated in filename Ymarea01.xlw)														
(All values in acre-feet)	January	February	March	April	May	June	July	August	September	October	November	December	Total	
Total Agricultural ET	446	578	676	720	571	624	661	609	430	463	426	313	6,516	
On-District Open-Water Evap.														
State of CA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Phreatophyte ET														
State of CA	64	80	135	212	331	383	410	381	295	165	86	31	2573	
Monthly ET values														
Alfalfa-perennial	134	217	271	289	359	421	451	419	302	256	157	123	3400	
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cotton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Grain	55	83	120	118	44	0	0	0	0	0	0	13	433	
Field Grain	0	1	3	7	9	7	0	0	0	0	0	0	27	
Lettuce-early	0	0	0	0	0	0	0	0	43	74	79	0	197	
Lettuce-late	79	55	0	0	0	0	0	0	0	0	0	39	173	
Melons-spring	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons-fall	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bermuda	0	0	0	13	31	36	39	35	27	2	0	0	183	
Bermuda w/ rye	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Citrus-young	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Citrus-mature	5	6	9	10	11	12	13	12	9	7	6	4	103	
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	0	0	0	39	111	141	151	135	0	0	0	0	577	
Legume/Solanum Veg	30	37	20	0	0	0	0	0	0	10	20	19	137	
Crucifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dates	2	3	5	5	6	7	8	7	5	4	3	2	56	
Safflower	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Orchards	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Vegetables	140	175	248	238	0	0	0	0	0	54	96	80	1031	
Root Vegetables	0	0	0	0	0	0	0	0	43	57	65	34	199	
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grapes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herbs-(miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0	0	0

2002 LCRAS	Sheet AC, Page 2 of 5			2002	TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the State of California [CA])													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
State of CA													
Monthly ET values													
Marsh	2	2	9	16	19	21	23	21	16	6	2	1	138
Barren	21	27	30	19	22	24	26	24	19	13	16	13	253
Sc-low	6	7	12	22	39	48	51	48	37	19	9	2	301
Sc-high	7	9	17	33	55	64	69	64	49	26	11	3	405
Sc/ms	2	3	5	10	17	20	21	19	15	8	3	1	123
Sc/aw	3	3	7	13	22	26	28	26	20	10	4	1	165
Sc/ms/aw	2	3	6	11	19	22	24	22	17	10	4	1	141
Ms-low	8	10	18	29	45	52	56	52	40	25	12	3	351
Ms-high	5	6	12	23	35	40	43	40	31	18	9	2	264
Ms/aw	2	3	5	10	15	17	18	17	13	8	4	1	111
Aw	4	5	9	17	28	34	36	33	26	15	7	2	215
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	2	3	5	9	14	16	17	15	12	7	4	1	105

2002 LCRAS		Sheet AC, Page 3 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table														
(Sheet to calculate ET for the State of California [CA])														
	January	February	March	April	May	June	July	August	September	October	November	December		
State of CA														
Acreages (acres)														
Total Agricultural Acres	2391	2391	2391	2391	2391	2391	2391	2391	2391	2391	2391	2391		
Alfalfa-perennial	603.42	603.42	603.42	603.42	603.42	603.42	603.42	603.42	603.42	603.42	603.42	603.42	603.42	
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0	
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cotton	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small Grain	209.04	209.04	209.04	209.04	209.04	209.04	209.04	209.04	209.04	209.04	209.04	209.04	209.04	
Field Grain	11.04	11.04	11.04	11.04	11.04	11.04	11.04	11.04	11.04	11.04	11.04	11.04	11.04	
Lettuce-early	254.38	254.38	254.38	254.38	254.38	254.38	254.38	254.38	254.38	254.38	254.38	254.38	254.38	
Lettuce-late	285.99	285.99	285.99	285.99	285.99	285.99	285.99	285.99	285.99	285.99	285.99	285.99	285.99	
Melons-spring	0	0	0	0	0	0	0	0	0	0	0	0	0	
Melons-fall	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bermuda	54.07	54.07	54.07	54.07	54.07	54.07	54.07	54.07	54.07	54.07	54.07	54.07	54.07	
Bermuda w/ rye	0	0	0	0	0	0	0	0	0	0	0	0	0	
Citrus-young	0	0	0	0	0	0	0	0	0	0	0	0	0	
Citrus-mature	26.45	26.45	26.45	26.45	26.45	26.45	26.45	26.45	26.45	26.45	26.45	26.45	26.45	
Citrus-declining	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sudan	157.77	157.77	157.77	157.77	157.77	157.77	157.77	157.77	157.77	157.77	157.77	157.77	157.77	
Legume/Solanum Veg	100.68	100.68	100.68	100.68	100.68	100.68	100.68	100.68	100.68	100.68	100.68	100.68	100.68	
Crucifers	0	0	0	0	0	0	0	0	0	0	0	0	0	
Dates	9.17	9.17	9.17	9.17	9.17	9.17	9.17	9.17	9.17	9.17	9.17	9.17	9.17	
Safflower	0	0	0	0	0	0	0	0	0	0	0	0	0	
Orchards	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small Vegetables	489.32	489.32	489.32	489.32	489.32	489.32	489.32	489.32	489.32	489.32	489.32	489.32	489.32	
Root Vegetables	189.59	189.59	189.59	189.59	189.59	189.59	189.59	189.59	189.59	189.59	189.59	189.59	189.59	
Perennial Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grapes	0	0	0	0	0	0	0	0	0	0	0	0	0	
Herbs-(miscellaneous)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0	0	

[illegible]



2002 LCRAS	Sheet AC, Page 5 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the State of California [CA])									
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]

[illegible]

[illegible]



2002 LCRAS	Sheet AD, Page 5 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the Unit "B" Irrigation and Drainage District [IDD], AZ)									
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]

[illegible]



[illegible]

[illegible]

2002 LCRAS	Sheet AE, Page 5 of 5			2002 TOTAL DIVERTER ET												
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the University of Arizona Agricultural Test Station, AZ)												
Monthly ET values, inches (from Ymarea01.xlw)																
	January	February	March	April	May	June	July	August	September	October	November	December	Total			
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61			
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91			
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87			
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59			
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88			
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68			
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27			
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26			
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80			
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80			
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66			
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57			
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94			
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61			
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62			
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80			
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85			
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38			
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23			
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56			
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19			
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90			
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28			
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57			
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01			
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86			
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92			
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38			
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24			
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39			
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92			
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48			
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94			
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67			
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43			
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40			
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49			
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33			
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89			
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13			
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00			
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27			
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01			

[illegible]

2002 LCRAS	Sheet AF, Page 2 of 5			2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table														
(Sheet to calculate ET for the West Cocopah Indian Reservation [IR], AZ)														
(All values in acre-feet)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
West Cocopah IR, AZ														
Monthly ET values														
Marsh	0	0	1	2	3	3	3	3	2	1	0	0	20	
Barren	24	30	34	21	25	27	29	27	21	15	18	14	286	
Sc-low	26	32	52	99	173	211	226	210	162	85	37	11	1324	
Sc-high	12	15	28	54	92	107	115	107	82	43	18	5	677	
Sc/ms	15	19	37	74	125	146	157	146	113	59	25	6	920	
Sc/aw	11	14	27	54	91	106	114	106	82	43	18	5	670	
Sc/ms/aw	4	5	11	20	33	38	41	38	30	17	8	2	246	
Ms-low	13	16	29	48	74	85	91	85	66	40	20	5	572	
Ms-high	7	9	19	35	55	61	66	61	47	28	15	4	407	
Ms/aw	4	5	10	18	27	31	33	31	24	14	7	2	204	
Aw	6	8	14	26	43	52	56	52	40	23	10	3	334	
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0	
Low Veg	21	26	49	82	125	142	152	141	109	66	36	11	962	

[illegible]

2002 LCRAS		Sheet AF, Page 4 of 5				2002 TOTAL DIVERTER ET												
Imperial Dam to Mexico Water Balance Table																		
(Sheet to calculate ET for the West Cocopah Indian Reservation [IR], AZ)																		
	January	February	March	April	May	June	July	August	September	October	November	December						
West Cocopah IR, AZ Acreages (acres)																		
Total Phreatophyte Acres	1503	1503	1503	1503	1503	1503	1503	1503	1503	1503	1503	1503						
Marsh	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25						
Barren	254.92	254.92	254.92	254.92	254.92	254.92	254.92	254.92	254.92	254.92	254.92	254.92						
Sc-low	274.24	274.24	274.24	274.24	274.24	274.24	274.24	274.24	274.24	274.24	274.24	274.24						
Sc-high	123.74	123.74	123.74	123.74	123.74	123.74	123.74	123.74	123.74	123.74	123.74	123.74						
Sc/ms	159.00	159.00	159.00	159.00	159.00	159.00	159.00	159.00	159.00	159.00	159.00	159.00						
Sc/aw	119.37	119.37	119.37	119.37	119.37	119.37	119.37	119.37	119.37	119.37	119.37	119.37						
Sc/ms/aw	41.85	41.85	41.85	41.85	41.85	41.85	41.85	41.85	41.85	41.85	41.85	41.85						
Ms-low	133.81	133.81	133.81	133.81	133.81	133.81	133.81	133.81	133.81	133.81	133.81	133.81						
Ms-high	76.51	76.51	76.51	76.51	76.51	76.51	76.51	76.51	76.51	76.51	76.51	76.51						
Ms/aw	40.14	40.14	40.14	40.14	40.14	40.14	40.14	40.14	40.14	40.14	40.14	40.14						
Aw	66.74	66.74	66.74	66.74	66.74	66.74	66.74	66.74	66.74	66.74	66.74	66.74						
Cw	0	0	0	0	0	0	0	0	0	0	0	0						
Low Veg	209.88	209.88	209.88	209.88	209.88	209.88	209.88	209.88	209.88	209.88	209.88	209.88						

2002 LCRAS	Sheet AF, Page 5 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the West Cocopah Indian Reservation [IR], AZ)									
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01



[illegible]

2002 LCRAS	Sheet AG, Page 2 of 5		2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Yuma Irrigation District, AZ)													
(All values in acre-feet)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Yuma Irrg. Dist., AZ													
Monthly ET values													
Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0
Barren	5	6	7	4	5	6	6	6	4	3	4	3	59
Sc-low	4	5	7	14	24	29	31	29	23	12	5	1	185
Sc-high	7	9	18	34	57	67	72	67	52	27	12	3	425
Sc/ms	0	0	0	0	0	0	0	0	0	0	0	0	2
Sc/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Sc/ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms-low	0	0	0	1	1	1	1	1	1	0	0	0	6
Ms-high	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms/aw	0	0	0	0	0	0	0	0	0	0	0	0	0
Aw	5	6	12	22	36	43	46	43	33	19	9	2	274
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Veg	7	9	16	27	42	47	51	47	37	22	12	4	321

[illegible]

[illegible]

2002 LCRAS	Sheet AG, Page 5 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the Yuma Irrigation District, AZ)									
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]

[illegible]

[illegible]



[illegible]

2002 LCRAS	Sheet AH, Page 5 of 5				2002 TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the Yuma Mesa Irrigation and Drainage District [IDD], AZ)									
Monthly ET values, inches (from Ymarea01.xlw)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01

[illegible]

[illegible]

[illegible]

[illegible]

2002 LCRAS	Sheet AI, Page 5 of 5												2002 TOTAL DIVERTER ET							
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the Department of the Army's Yuma Proving Ground [YPG], AZ)																
Monthly ET values, inches (from Ymarea01.xlw)																				
	January	February	March	April	May	June	July	August	September	October	November	December	Total							
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61							
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91							
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87							
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59							
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88							
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68							
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27							
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26							
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80							
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80							
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66							
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57							
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94							
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61							
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62							
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80							
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85							
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38							
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23							
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56							
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19							
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90							
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28							
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57							
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01							
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86							
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92							
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38							
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24							
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39							
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92							
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48							
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94							
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67							
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43							
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40							
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49							
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33							
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89							
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13							
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00							
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27							
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01							

[illegible]



2002 LCRAS	Sheet AJ, Page 2 of 5			2002		TOTAL DIVERTER ET								
Imperial Dam to Mexico Water Balance Table														
(Sheet to calculate ET for the Department of the Army's Yuma Proving Ground [YPG], CA)														
(All values in acre-feet)														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	
YPG, CA														
Monthly ET values														
Marsh	4	5	21	38	46	51	55	51	39	13	4	3	331	
Barren	20	25	28	18	21	23	25	23	18	13	15	12	241	
Sc-low	15	18	29	56	98	119	127	118	91	48	21	6	745	
Sc-high	75	93	179	346	582	681	728	677	524	273	117	30	4303	
Sc/ms	23	29	57	113	191	224	240	223	172	90	38	9	1408	
Sc/aw	7	8	16	31	53	62	67	62	48	25	11	3	392	
Sc/ms/aw	3	3	7	14	23	26	28	26	20	12	5	1	170	
Ms-low	5	6	12	19	30	35	37	34	27	16	8	2	231	
Ms-high	5	6	13	25	39	43	46	43	33	20	10	3	287	
Ms/aw	2	2	4	7	11	12	13	12	9	6	3	1	81	
Aw	6	8	14	26	43	51	55	51	39	22	10	3	327	
Cw	0	0	0	0	0	0	0	0	0	0	0	0	0	
Low Veg	8	10	19	31	47	54	57	53	41	25	14	4	364	

[illegible]

[illegible]

2002 LCRAS	Sheet AJ, Page 5 of 5												2002 TOTAL DIVERTER ET							
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the Department of the Army's Yuma Proving Ground [YPG], CA)																
Monthly ET values, inches (from Ymarea01.xlw)																				
	January	February	March	April	May	June	July	August	September	October	November	December	Total							
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61							
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91							
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87							
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59							
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88							
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68							
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27							
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26							
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80							
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80							
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66							
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57							
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94							
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61							
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62							
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80							
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85							
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38							
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23							
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56							
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19							
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90							
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28							
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57							
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01							
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86							
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92							
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38							
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24							
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39							
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92							
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48							
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94							
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67							
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43							
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40							
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49							
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33							
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89							
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13							
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00							
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27							
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01							

2002 LCRAS		Sheet AK, Page 1 of 5			2002 TOTAL DIVERter ET								
Imperial Dam to Mexico Water Balance Table													
(Sheet to calculate ET for the Yuma County Water Users' Association [Yuma Valley Irrigation District {ID}], AZ)													
(Based on average ETo values from 3 Yuma Area AZMET stations, and average precipitation from Yuma Area AZMET and NWS stations)													
(ET's for each crop/phreatophyte are calculated in filename Ymarea01.xlw)													
(All values in acre-feet)	January	February	March	April	May	June	July	August	September	October	November	December	Total
Total Agricultural ET	8705	10669	13712	16978	15545	13420	13984	13077	7847	7662	7924	4263	133,786
On-District Open-Water Evap.													
Yuma County WUA, AZ	72	101	155	180	216	239	258	240	181	116	83	42	1884
Total Phreatophyte ET													
Yuma County WUA, AZ	1	1	1	1	1	1	2	1	1	1	1	0	12
Monthly ET values													
Alfalfa-perennial	181	293	365	390	483	567	608	565	407	346	211	166	4581
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0
Cotton	0	0	306	629	1132	2173	3339	3594	2411	558	0	0	14141
Small Grain	4987	7560	10874	10669	3961	0	0	0	0	0	0	1215	39267
Field Grain	0	63	293	661	852	618	0	0	0	0	0	0	2487
Lettuce-early	0	0	0	0	0	0	0	0	2640	4566	4852	0	12058
Lettuce-late	2154	1510	0	0	0	0	0	0	0	0	0	1061	4724
Melons-spring	0	359	623	814	922	0	0	0	0	0	0	0	2718
Melons-fall	0	0	0	0	0	0	0	0	277	321	299	158	1054
Bermuda	0	0	0	18	43	49	52	48	36	2	0	0	248
Bermuda w/ rye	11	13	18	11	25	29	31	29	22	8	13	7	217
Citrus-young	29	35	48	52	60	65	69	65	51	36	31	20	561
Citrus-mature	148	177	244	268	309	333	356	331	262	184	161	100	2873
Citrus-declining	6	7	10	11	13	14	15	14	11	8	7	4	118
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	0	0	0	2317	6560	8354	8939	8034	0	0	0	0	34202
Legume/Solanum Veg	156	191	103	0	0	0	0	0	0	53	105	97	706
Crucifers	772	0	0	0	0	0	0	0	1428	1328	1994	1272	6794
Dates	32	42	67	79	95	105	112	103	80	52	42	25	835
Safflower	0	124	355	645	823	819	146	0	0	0	0	0	2910
Orchards	7	8	16	25	37	41	44	41	32	21	16	7	295
Small Vegetables	118	147	209	201	0	0	0	0	0	45	81	67	868
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Perennial Vegetables	2	3	5	9	13	15	16	14	10	5	3	2	96
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0	0
Grapes	0	0	0	0	0	0	0	0	0	0	0	0	1
Herbs-(miscellaneous)	29	37	21	0	0	0	0	0	0	13	25	19	144
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0	0
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0	0

[illegible]

2002 LCRAS	Sheet AK, Page 3 of 5			2002 TOTAL DIVERTER ET													
Imperial Dam to Mexico Water Balance Table																	
(Sheet to calculate ET for the Yuma County Water Users' Association [Yuma Valley Irrigation District {ID}], AZ)																	
	January	February	March	April	May	June	July	August	September	October	November	December					
Yuma County WUA, AZ																	
Acreages (acres)																	
Total Agricultural Acres	69909	69909	69909	69909	69909	69909	69909	69909	69909	69909	69909	69909					
* - Includes 61.33 acres of Greenhouse/nursery in Citrus-mature acreage.																	
Alfalfa-perennial	813.13	813.13	813.13	813.13	813.13	813.13	813.13	813.13	813.13	813.13	813.13	813.13	813.13				
Alfalfa-annual	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Alfalfa-seed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cotton	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	4080.09	
Small Grain	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	18939.18	
Field Grain	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	1005.66	
Lettuce-early	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	15608.76	
Lettuce-late	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	7808.69	
Melons-spring	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	1370.31	
Melons-fall	916.90	916.90	916.90	916.90	916.90	916.90	916.90	916.90	916.90	916.90	916.90	916.90	916.90	916.90	916.90	916.90	
Bermuda	73.17	73.17	73.17	73.17	73.17	73.17	73.17	73.17	73.17	73.17	73.17	73.17	73.17	73.17	73.17	73.17	
Bermuda w/ rye	43.77	43.77	43.77	43.77	43.77	43.77	43.77	43.77	43.77	43.77	43.77	43.77	43.77	43.77	43.77	43.77	
Citrus-young	240.96	240.96	240.96	240.96	240.96	240.96	240.96	240.96	240.96	240.96	240.96	240.96	240.96	240.96	240.96	240.96	
Citrus-mature*	739.78	739.78	739.78	739.78	739.78	739.78	739.78	739.78	739.78	739.78	739.78	739.78	739.78	739.78	739.78	739.78	
Citrus-declining	43.47	43.47	43.47	43.47	43.47	43.47	43.47	43.47	43.47	43.47	43.47	43.47	43.47	43.47	43.47	43.47	
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sudan	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	9359.84	
Legume/Solanum Veg	517.48	517.48	517.48	517.48	517.48	517.48	517.48	517.48	517.48	517.48	517.48	517.48	517.48	517.48	517.48	517.48	
Crucifers	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	6666.22	
Dates	136.22	136.22	136.22	136.22	136.22	136.22	136.22	136.22	136.22	136.22	136.22	136.22	136.22	136.22	136.22	136.22	
Safflower	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	
Orchards	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08	
Small Vegetables	412.08	412.08	412.08	412.08	412.08	412.08	412.08	412.08	412.08	412.08	412.08	412.08	412.08	412.08	412.08	412.08	
Root Vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Perennial Vegetables	20.28	20.28	20.28	20.28	20.28	20.28	20.28	20.28	20.28	20.28	20.28	20.28	20.28	20.28	20.28	20.28	
Sugar Beets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grapes	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
Herbs-(miscellaneous)	112.57	112.57	112.57	112.57	112.57	112.57	112.57	112.57	112.57	112.57	112.57	112.57	112.57	112.57	112.57	112.57	
Moist Soil Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Seasonal Wetland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

[illegible]



2002 LCRAS	Sheet AK, Page 5 of 5												2002 TOTAL DIVERTER ET							
Imperial Dam to Mexico Water Balance Table				(Sheet to calculate ET for the Yuma County Water Users' Association [Yuma Valley Irrigation District (ID)], AZ)																
Monthly ET values, inches (from Ymarea01.xlw)																				
	January	February	March	April	May	June	July	August	September	October	November	December	Total							
Alfalfa-perennial	2.67	4.32	5.38	5.75	7.13	8.37	8.97	8.34	6.01	5.10	3.12	2.45	67.61							
Alfalfa-annual	1.96	4.55	4.91	6.07	9.41	5.88	11.20	0.00	0.00	0.00	0.00	0.93	44.91							
Alfalfa-seed	1.36	2.81	4.01	2.72	5.51	6.21	3.91	6.10	5.57	5.10	3.12	2.45	48.87							
Cotton	0.00	0.00	0.90	1.85	3.33	6.39	9.82	10.57	7.09	1.64	0.00	0.00	41.59							
Small Grain	3.16	4.79	6.89	6.76	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.77	24.88							
Field Grain	0.00	0.75	3.50	7.89	10.17	7.37	0.00	0.00	0.00	0.00	0.00	0.00	29.68							
Lettuce-early	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	3.51	3.73	0.00	9.27							
Lettuce-late	3.31	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	7.26							
Melons-spring	0.00	3.14	5.46	7.13	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.80							
Melons-fall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	4.20	3.91	2.07	13.80							
Bermuda	0.00	0.00	0.00	2.95	6.98	8.01	8.57	7.86	5.94	0.35	0.00	0.00	40.66							
Bermuda w/ rye	3.07	3.66	4.80	2.95	6.98	8.01	8.57	7.86	5.94	2.25	3.43	2.05	59.57							
Citrus-young	1.44	1.72	2.37	2.60	3.01	3.24	3.46	3.22	2.55	1.79	1.56	0.98	27.94							
Citrus-mature	2.40	2.87	3.96	4.34	5.02	5.40	5.77	5.37	4.25	2.99	2.61	1.63	46.61							
Citrus-declining	1.68	2.01	2.77	3.04	3.51	3.78	4.04	3.76	2.98	2.09	1.82	1.14	32.62							
Tomatoes	0.00	2.65	5.23	8.27	9.59	4.06	0.00	0.00	0.00	0.00	0.00	0.00	29.80							
Sudan	0.00	0.00	0.00	2.97	8.41	10.71	11.46	10.30	0.00	0.00	0.00	0.00	43.85							
Legume/Solanum Veg	3.62	4.44	2.40	0.00	0.00	0.00	0.00	0.00	0.00	1.22	2.44	2.26	16.38							
Crucifers	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.39	3.59	2.29	12.23							
Dates	2.83	3.70	5.93	6.96	8.40	9.25	9.84	9.11	7.02	4.61	3.73	2.18	73.56							
Safflower	0.00	1.58	4.53	8.24	10.51	10.47	1.86	0.00	0.00	0.00	0.00	0.00	37.19							
Orchards	1.32	1.66	3.15	4.94	7.21	8.05	8.61	8.01	6.21	4.09	3.24	1.41	57.90							
Small Vegetables	3.44	4.28	6.09	5.84	0.00	0.00	0.00	0.00	0.00	1.32	2.36	1.95	25.28							
Root Vegetables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	3.59	4.11	2.16	12.57							
Perennial Vegetables	1.41	1.75	2.68	5.04	7.88	8.73	9.34	8.38	5.94	3.11	1.82	0.93	57.01							
Sugar Beets	3.66	4.56	6.56	7.26	6.28	0.19	0.00	0.00	0.88	1.74	2.50	2.23	35.86							
Grapes	0.00	0.27	1.76	4.53	7.23	8.04	8.18	6.00	1.91	0.00	0.00	0.00	37.92							
Herbs-(miscellaneous)	3.14	3.90	2.19	0.00	0.00	0.00	0.00	0.00	0.00	1.41	2.67	2.07	15.38							
Moist Soil Unit	3.45	4.29	6.05	6.96	4.93	3.05	10.92	10.66	4.88	4.82	3.93	2.3	66.24							
Seasonal Wetland	3.45	4.29	4.99	4.03	3.8	2.44	5.14	5.18	4.02	4.82	3.93	2.3	48.39							
Marsh	0.90	1.12	4.73	8.41	10.18	11.26	12.04	11.20	8.61	2.91	0.98	0.58	72.92							
Barren	1.14	1.42	1.58	1.01	1.16	1.29	1.38	1.28	0.99	0.71	0.85	0.67	13.48							
Sc-low	1.14	1.42	2.27	4.33	7.59	9.22	9.87	9.18	7.10	3.72	1.64	0.46	57.94							
Sc-high	1.14	1.42	2.73	5.28	8.88	10.39	11.11	10.33	7.99	4.16	1.78	0.46	65.67							
Sc/ms	1.14	1.42	2.79	5.55	9.43	11.05	11.82	10.99	8.50	4.42	1.86	0.46	69.43							
Sc/aw	1.14	1.42	2.76	5.40	9.13	10.69	11.44	10.64	8.22	4.28	1.82	0.46	67.40							
Sc/ms/aw	1.14	1.42	3.03	5.69	9.40	10.98	11.74	10.92	8.46	4.97	2.24	0.50	70.49							
Ms-low	1.14	1.42	2.61	4.27	6.62	7.66	8.20	7.62	5.91	3.63	1.77	0.48	51.33							
Ms-high	1.14	1.42	2.97	5.51	8.60	9.63	10.30	9.58	7.42	4.44	2.28	0.60	63.89							
Ms/aw	1.14	1.42	2.91	5.30	8.22	9.20	9.85	9.16	7.10	4.22	2.08	0.53	61.13							
Aw	1.14	1.42	2.59	4.71	7.80	9.37	10.02	9.32	7.22	4.05	1.88	0.48	60.00							
Cw	1.14	1.42	2.91	5.30	8.46	9.63	10.30	9.58	7.42	4.41	2.16	0.54	63.27							
Low Veg	1.21	1.51	2.82	4.67	7.16	8.13	8.69	8.08	6.26	3.79	2.07	0.62	55.01							