

(s16.66H

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994

INPUT FILE = POND2-6.DAT

RUN DATE (MON/DAY/YR) =03/11/2005

USER NO.= M_GOODWN.I01

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1 NOTATION
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START

TIME= .00

*S

*S

RIO BRAVO

*S

*S

*S

*S 100-YR, 24-HR STORM WITHOUT SEDIMENT

*S FILE NAME: RB_DMP.DAT

*S BY: RICHARD STOCKTON

*S REVISED BY MARK GOODWIN AND ASSOCIATES 3-11-05. EXIST FLOW INTO PONDS 2-6

*S LAST REVISION: 7-15-03

*S*****

*S THE PURPOSE OF THIS MODEL IS TO CALCULATE THE RUNOFF FROM FROM THE

*S SACATE BLANCO WATERSHED WEST OF THE POWERLINE EASEMENT (AKA SOUTH

*S POWERLINE DIVERSION AND DETENTION FACILITY);

*S AND THE RIO BRAVO WATERSHED.

*S

*S FLOWS FROM THIS WATERSHED ARE CONVEYED TO HUBBLE LAKE DETENTION

*S FACILITY VIA THE HUBBLE LAKE/AMOLE DIVERSION CHANNEL.

*S

*S THE ORGINIAL RIO BRAVO MODEL WAS DEVELOPED BY AVID (AND ACCEPTED BY

*S THE COUNTY). ASSUMPTIONS MADE IN THE AVID MODEL ARE INVALID, AND HAVE

*S BEEN CORRECTED WITH THE 4-25-03 REVISIONS. DIVERSIONS TO THE BOREGA DAM

*S AND THE AMOLE CHANNEL REDUCE THIS BASIN AND 114 AC. OF THE SACATE BLANCO

*S BELOW THE POWER LINE IS ADDED TO THE RIO BRAVO CHANNEL.

*S PONDS 7 & 9 ARE DELETED AND POND 10 IS ADDED.

*S

*S PONDS 2,3,4,5,6,8 & 10 WERE SIZED FOR DEVELOPED FLOW AND USED ACTUAL TOPO

*S TO SIZE. THE BASINS WERE RENAMED AND SIZED PER HOW THEY DRAINED TO EACH

*S POND. THE DENNIS CHAVEZ ROW RUNOFF EAST OF 118TH STREET WAS TAKEN OUT

*S OF THE RIO BRAVO CHANNEL TO REDUCE THE IMPACT AT THE CONDISHIRE BOXES.

*S THIS FLOW (BASINS 210, 213 & 216)ALONG WITH BASIN 215 WILL NEED TO BE

*S DESIGNED INTO A STORMDRAIN THAT WILL BE CONSTRUCTED ON THE SOUTH SIDE OF

*S DENNIS CHAVEZ AND TIE DIRECTLY TO THE HUBBLE CHANNEL AT THE EAST END OF

*S BASIN 216. DENNIS CHAVEZ BASIN 203 WILL BE SPLIT N & S WITH THE SOUTH HALF

*S BEING ROUTED THROUGH POND 8

*S*****

*S ANALYSIS ASSUMPTIONS:

*S*****

*S 1. ALL LAND IN THE RIO BRAVO BASIN IS MODELED AS DEVELOPED CONDITION AT

*S 6 DU/AC, EXCEPT ANDERSON HILLS WHERE LOWER DENSITIES ARE CERTAIN, AND

*S EXCEPT IN BASINS 201 AND 202 WHERE THERE IS NO LIGHT.

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*S 2. THE PUNCH HYD COMMAND WAS ADDED TO THE END OF THIS FILE SO THE OUTFALL
 *S HYDROGRAPH COULD BE USED IN THE AMOLE DEL NORTE EXISTING CONDITIONS MODEL
 *S AA100D1B.DAT, WHICH WILL BE USED IN THE ANALYSIS OF THE AMOLE ARROYO SYSTE
 *S
 *S 3. NO BULKING FACTORS WERE ADDED TO THE AREA TRIBUTARY TO THE RIO BRAVO
 *S CHANNEL DUE TO THE INCORPORATION OF DETENTION PONDS. HOWEVER, BULKING FACT
 *S HAVE BEEN ADDED TO BASINS TRIBUTARY TO HUBBELL CHANNEL AND LAKE.
 *S
 *S*****
 *S RAINFALL FROM NOAA ATLAS 2
 *S THESE VALUES WERE REDUCED FOR AREA BY 12%, 5% AND 3% FOR 1, 6, AND 24 HOUR
 RAINFALL TYPE= 2
 *S*****
 *S
 *S*****
 *S ADD BASINS FROM SOUTH POWERLINE DIVERSION
 *S TO THE RIO BRAVO RUN
 *S
 *S*****
 *S
 *S APPLY A 3% SEDIMENT BULKING FACTOR TO ALL COMPUTED HYDROGRAPHS

RAIN24= 2.660

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 2 NOTATION
SEDIMENT BULK										PK BF = 1.03
*S CALCULATE THE FLOW FROM SUB-BASINS A60106, A60107A, 60108 & 60109										
COMPUTE NM HYD	INTOPOND2	-	1	.21520	167.99	4.406	.38393	1.500	1.220	PER IMP= .00
*S										
*S ROUTE FLOW THROUGH POND 2 - 48" ORIFICE										
ROUTE RESERVOIR	POND2.OUT	1	2	.21520	81.86	4.406	.38393	1.650	.594	AC-FT= 1.634
*S										
*S CALCULATE THE FLOW FROM SUB-BASINS A60110 & A60111										
COMPUTE NM HYD	INTOPOND3	-	3	.14300	108.03	2.928	.38393	1.500	1.180	PER IMP= .00
*S										
*S ADD THE ROUTED FLOW FROM POND 2 TO THE FLOW FROM INTOPOND3										
*S HYD=POND3.IN IS THE TOTAL INFLOW INTO POND 3.										
ADD HYD	POND3.IN	2& 3	4	.35820	172.88	7.334	.38392	1.550	.754	
*S										
*S ROUTE FLOW THROUGH POND 3 - 48" ORIFICE										
ROUTE RESERVOIR	POND3.OUT	4	5	.35820	78.28	7.334	.38392	1.900	.341	AC-FT= 2.839
*S										
*S CALCULATE THE FLOW FROM SUB-BASINS A60113 & A60116N										
COMPUTE NM HYD	INTOPOND4	-	6	.05800	42.30	1.188	.38393	1.500	1.139	PER IMP= .00
*S										
*S ADD THE ROUTED FLOW FROM POND 3 TO THE FLOW FROM INTOPOND4										
ADD HYD	POND4.IN	5& 6	7	.41620	96.23	8.522	.38392	1.600	.361	
*S										
*S ROUTE FLOW THROUGH POND 4 - 48" ORIFICE										
ROUTE RESERVOIR	POND4.OUT	7	8	.41620	77.16	8.522	.38392	2.100	.290	AC-FT= 1.288
*S										
*S CALCULATE THE FLOW FROM SUB-BASINS A60114, A60115 & A60116S										
COMPUTE NM HYD	INTOPOND5	-	9	.31700	259.40	6.491	.38393	1.500	1.279	PER IMP= .00
*S										
*S ADD THE ROUTED FLOW FROM POND 4 TO THE FLOW FROM INTOPOND5										
ADD HYD	POND5.IN	8& 9	10	.73320	285.87	15.013	.38392	1.500	.609	
*S										
*S ROUTE FLOW THROUGH POND 5 - TWO 42" ORIFICES										
ROUTE RESERVOIR	POND5.OUT	10	11	.73320	127.35	15.013	.38392	1.750	.271	AC-FT= 3.719
*S										
*S COMPUTE HYDROGRAPH FOR BASIN 201										
COMPUTE NM HYD	INTOPOND6	-	12	.09690	71.73	1.984	.38393	1.500	1.157	PER IMP= .00
*S										
*S ADD THE ROUTED FLOW FROM POND 5 TO THE FLOW FROM INTOPOND6										
ADD HYD	POND6.IN	11&12	13	.83010	168.30	16.997	.38392	1.550	.317	
*S										
*S ROUTE FLOW THROUGH POND 6 - 54" ORIFICE										
ROUTE RESERVOIR	POND6.OUT	13	14	.83010	113.01	16.997	.38392	2.300	.213	AC-FT= 3.212
*S										
*S*****										
*S										

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