

Native Water

Purpose: To acquaint the student with the natural water resources of California.

I. Hydrologic Cycle Review – diagram Fig 5-2, pg.101.

II. Rainfall Map -

- A. 70% of stream flow comes from wettest 20% of the state.
- B.

III. Locations of Major Rivers – Fig. 5-1,pg. 99

- A. Sacramento R. System = 1/4 of state runoff
- B. Northwestern Rivers = 1/3 of state runoff
- C. San Joaquin R. = 14% of state runoff and water moves north toward S.F. Bay and therefore away from most of pop.
- D. Most rivers flow away from Los Angeles (Southern California)
- E. Show Major Lakes - note no Salton Sea until 1907 and some like Owens, Tulare are now gone.
- F. Explain the difference between Saltwater and Freshwater Lakes and the reason.

IV. The need to Flush S.F. Bay & Fisheries Dependence on Rivers. Especially; salmon, steelhead etc.

V. Precipitation is Seasonal

- A. (winter) when agricultural need is small.
- B. (summer) rivers are at their lowest when Ag. need is great.
- C. Runoff is mainly in winter to early spring
- D. Sierras - High value as a snow (water) reservoir, since max. discharge is in late spring to early summer.
- E. Problem how to get a steady supply of water when & where needed.

GREAT NEED FOR MANAGEMENT OF DISTRIBUTION & STORAGE

VI. DELTA at Gold Rush

- A. Mosquitoes
- B. Large area of flooded land in winter-spring
- C. Hard to cross
- D. Spring flood summer drought = difficult to farm
- E. Miners had little vegetables = Miner's Lettuce.
- F. Story of mid-western farmer's ignorance of irrigation. and resultant opinion that Cal. would always be dependent on other areas for vegetables & fruits. Today Cal. Cent. Valley = 25% of all fruits & Veg. in U.S., mostly irrigated land.

VII. Uncontrolled Rivers - feast to famine esp. in S. Cal.

- A. Deserts - flash flood danger.
- B. Undependable distribution of Ppt.

VIII. MOST IMPORTANT = Great disparity between north and south ends of the state. Population preferences after start of the 20th century were to areas with insufficient water.

THIS LECTURE SETS THE STAGE FOR LECTURES ON WATER PROJECTS PORTION OF THIS COURSE.

END