

# USACE FIRO-MAR PERSPECTIVE

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US Army Corps  
of Engineers®



# AUTHORIZED PURPOSES



- Reservoirs are engineering solutions designed to meet one or more purposes
- Purposes must be authorized through legislation
- Authorized purposes can be specific or general in nature

PL 78-534, Flood Control Act of 1944 (provides authority to add recreation as a purpose and to contract for use of surplus water for domestic purposes)

PL 85-500, Title III, Water Supply Act of 1958 (provides authority to include storage for municipal and industrial water supply)

PL 85-624, Fish and Wildlife Coordination Act of 1958 (provides authority to modify projects to conserve fish and wildlife)

PL 92-500, Federal Water Pollution Control Act Amendments of 1972 (establishes goal to restore and maintain the quality of the Nation's waters)

PL 93-205, Endangered Species Act of 1973 (provides authority for operating projects to protect threatened or endangered fish/wildlife)

Mokelumne  
River dam.

**SEC. 205. That, in recognition of the flood control accomplishments of the multiple purpose dam and reservoir (or dams and reservoirs) proposed to be constructed on the Mokelumne River by the East Bay Municipal Utility District of Oakland, California, there is hereby authorized to be appropriated a monetary contribution toward the construction cost of such dam and reservoir (or dams and reservoirs) and the amount of such contribution shall be determined by the Secretary of the Army in cooperation with the East Bay Municipal Utility District, and the Secretary of the Interior, subject to a finding by the Secretary of the Army, approved by the President, of economic**



# OPERATING PURPOSES



- Purpose for which water management decisions are made
- General rule – reservoir is operated to its authorized purposes
- Exceptions:
  - Not economical
  - Changed conditions in watershed
  - Served incidentally by meeting other purposes

<b>PRADO DAM (SANTA ANA RIVER BASIN)</b>		
<b>Santa Ana River. Riverside and San Bernardino Counties California.</b>		
<b>South Pacific Division Los Angeles District</b>		
<u><b>Operating Purposes</b></u>	<u><b>Authorized Purposes</b></u>	<u><b>Authorizing Laws</b></u>
<b>Flood Control</b>	<b>Flood Control</b>	<b>PL 74-738</b>
<b>Water Conservation</b>	<b>Water Conservation</b>	<b>PL 74-738</b>
	<b>Recreation</b>	<b>PL 78-534</b>
<b>Fish/Wildlife</b>	<b>Fish/Wildlife</b>	<b>PL 85-624, PL 93-205</b>



# AUTHORIZED / OPERATING PURPOSES



- Authorized/operating purposes can include (but are not limited to):
  - Flood Risk Mitigation (Flood Control)
  - Navigation
  - Hydropower
  - Recreation
  - Fish and Wildlife Conservation
  - Water Quality
  - Municipal and/or Industrial Water Supply
  - Irrigation
  - Groundwater

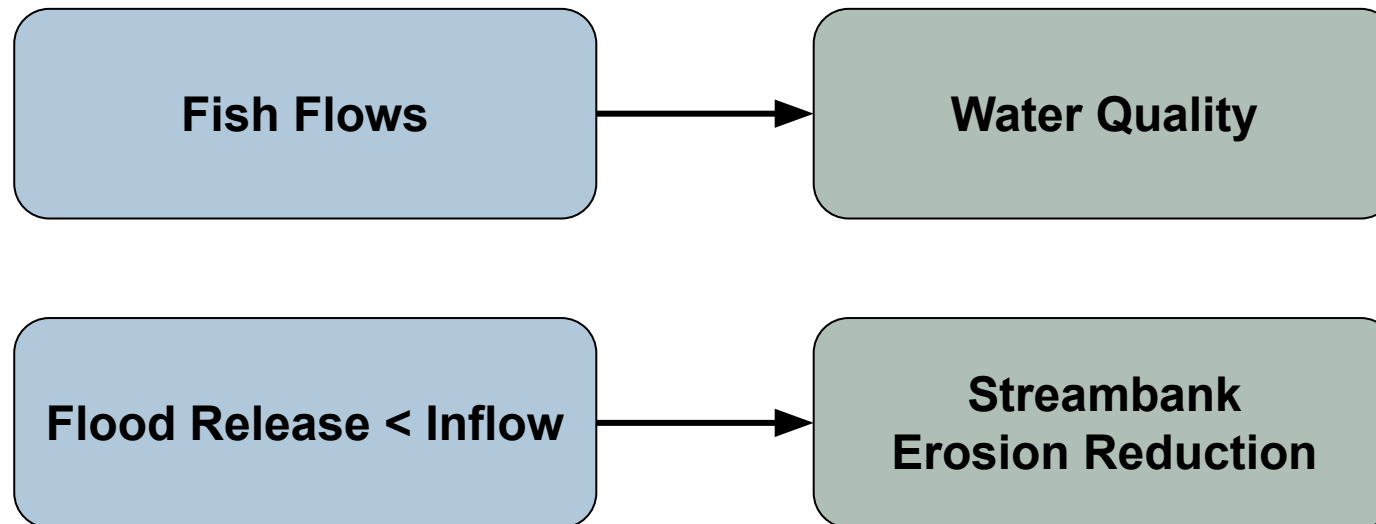
**MUST BE AUTHORIZED FOR SPECIFIC PURPOSE  
TO OPERATE FOR SPECIFIC PURPOSE**



# OPS FLEXIBILITY – INCIDENTAL BENEFITS



- Operational flexibility exists for meeting authorized purposes
  - Especially for release schedules
- Flexibility can produce incidental benefits





# SPK EXAMPLE – BIG DRY CREEK DAM



- Originally authorized for flood control only in 1941
- Constructed in 1948
- Included in Redbank and Fancher Creeks Flood Control Project, authorized in 1986 WRDA
  - Included groundwater recharge

## REDBANK AND FANCHER CREEKS, CALIFORNIA

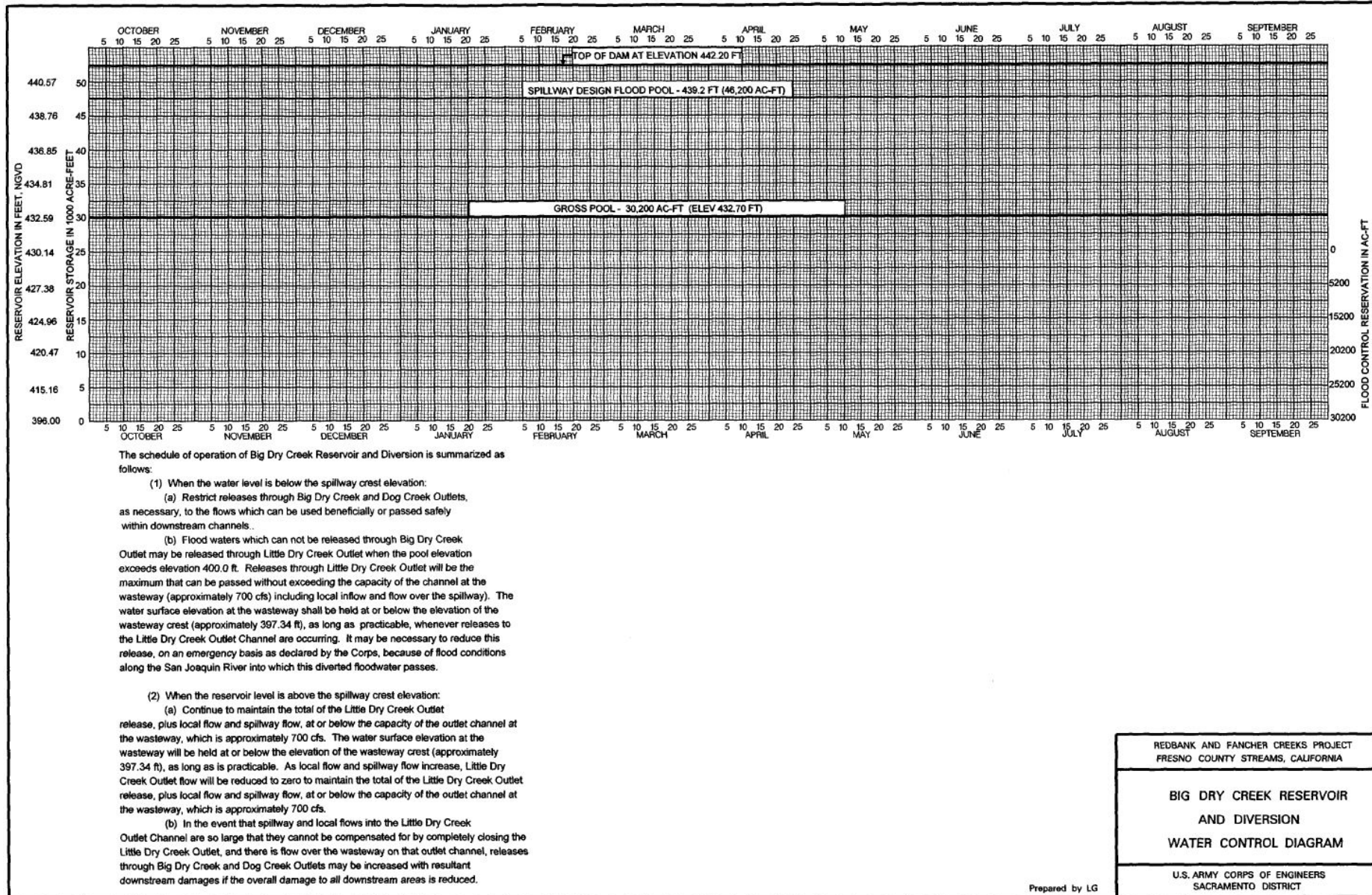
The project for flood control, Redbank and Fancher Creeks, California: Report of the Chief of Engineers, dated May 7, 1981, at a total cost of \$84,600,000, with an estimated first Federal cost of \$64,900,000 and an estimated first non-Federal cost of \$19,700,000.

The project shall include measures determined appropriate by the Secretary to minimize adverse effects on groundwater and to maximize benefits to groundwater, including ground water recharge.





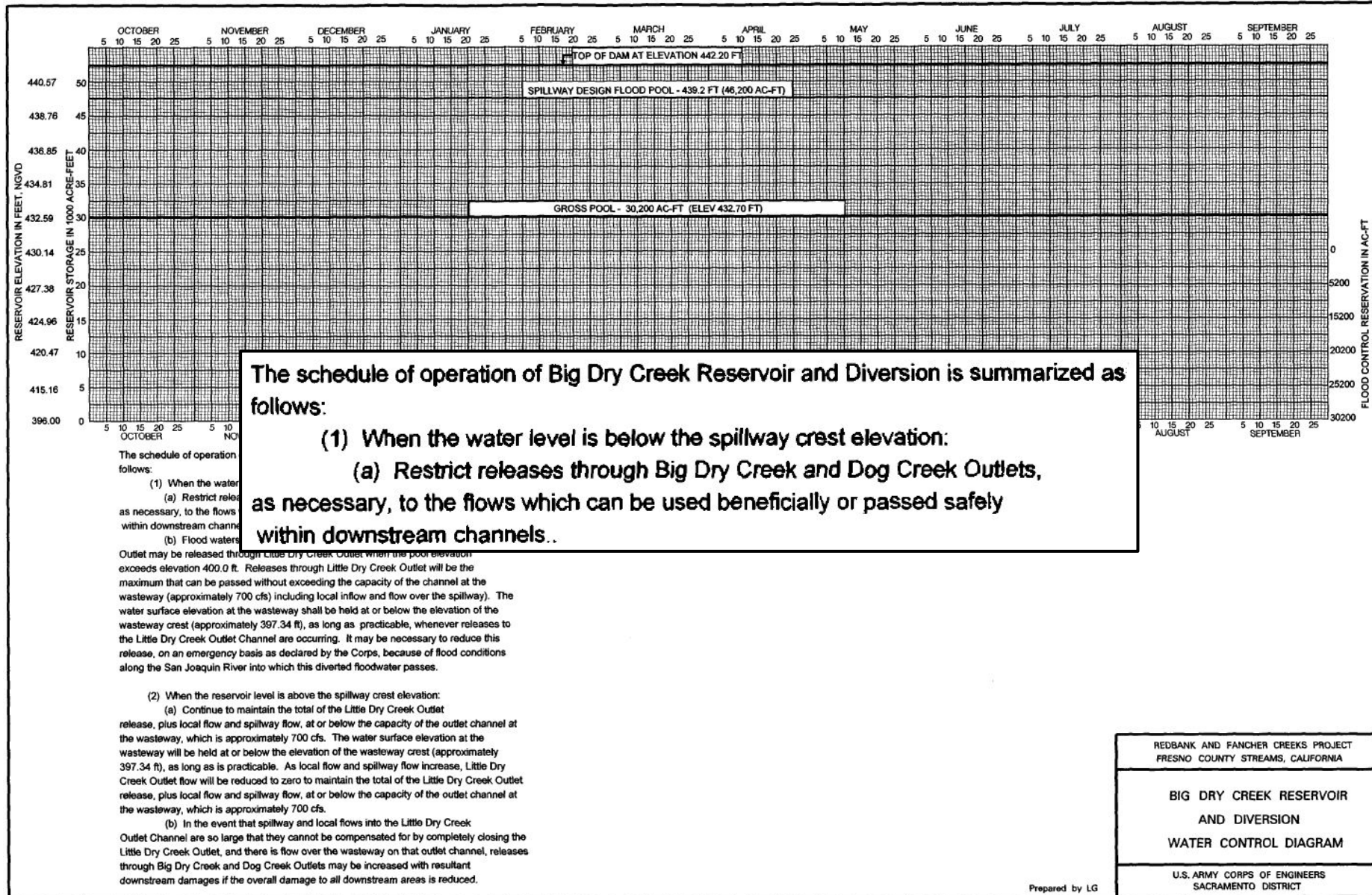
# SPK EXAMPLE – BIG DRY CREEK DAM







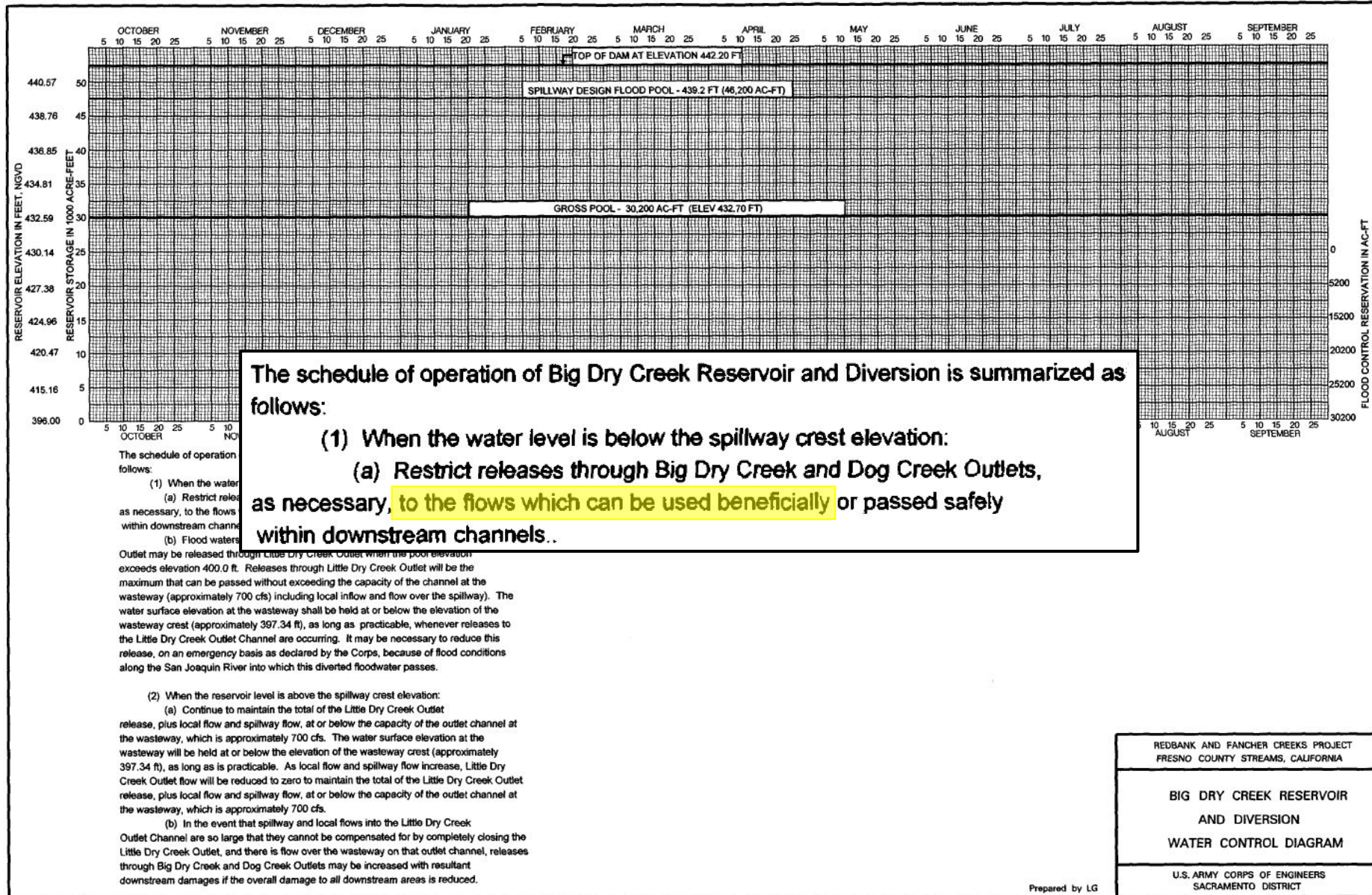
# SPK EXAMPLE – BIG DRY CREEK DAM







# SPK EXAMPLE – BIG DRY CREEK DAM





# SUMMARY



- Reservoirs must be operated to authorized purposes
- Operational flexibility producing incidental groundwater recharge benefits may help
- If not, having new groundwater recharge authorized purpose added may be necessary





**THANK YOU**

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