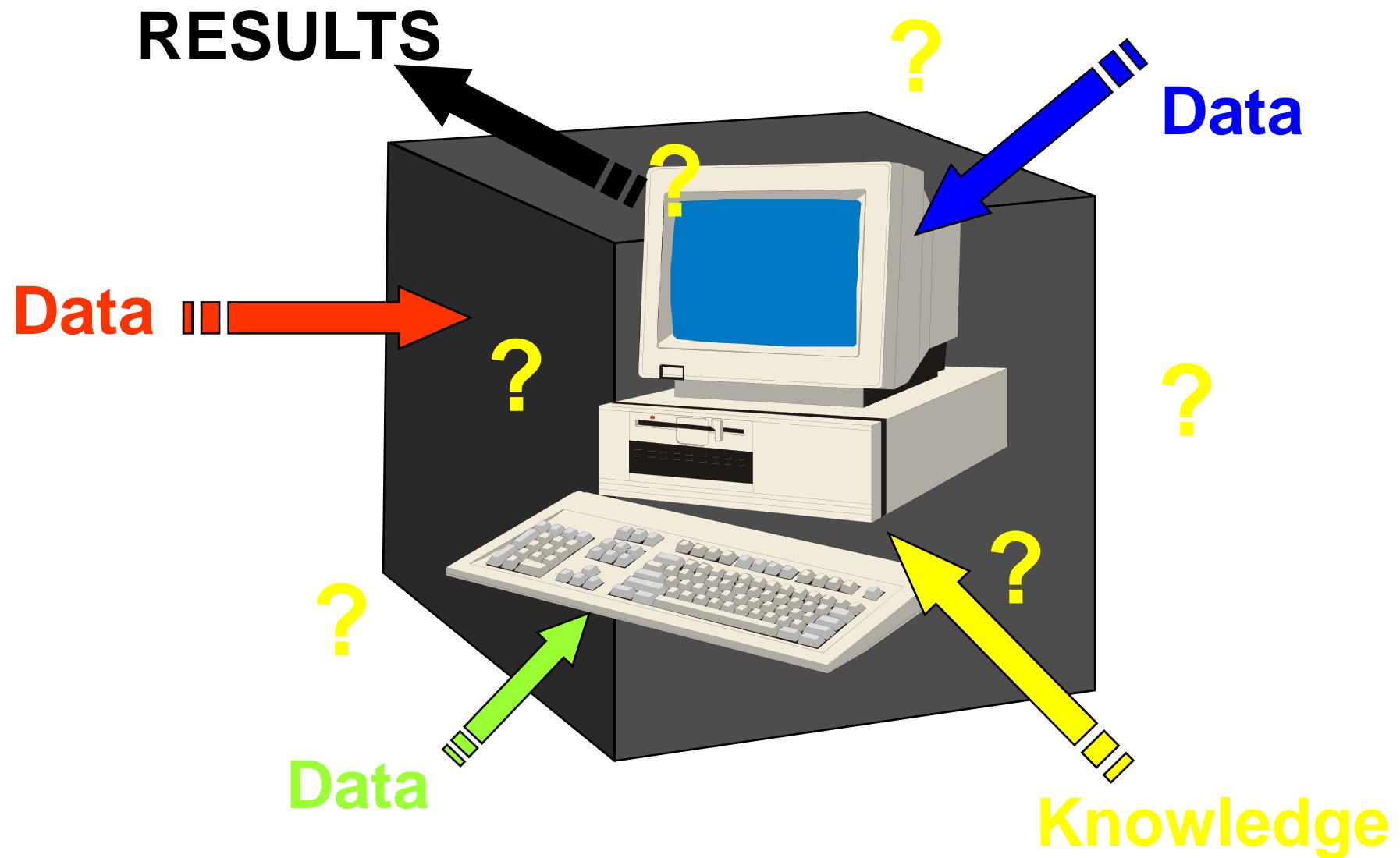


# **Using Measured Flow Data for Model Validation**

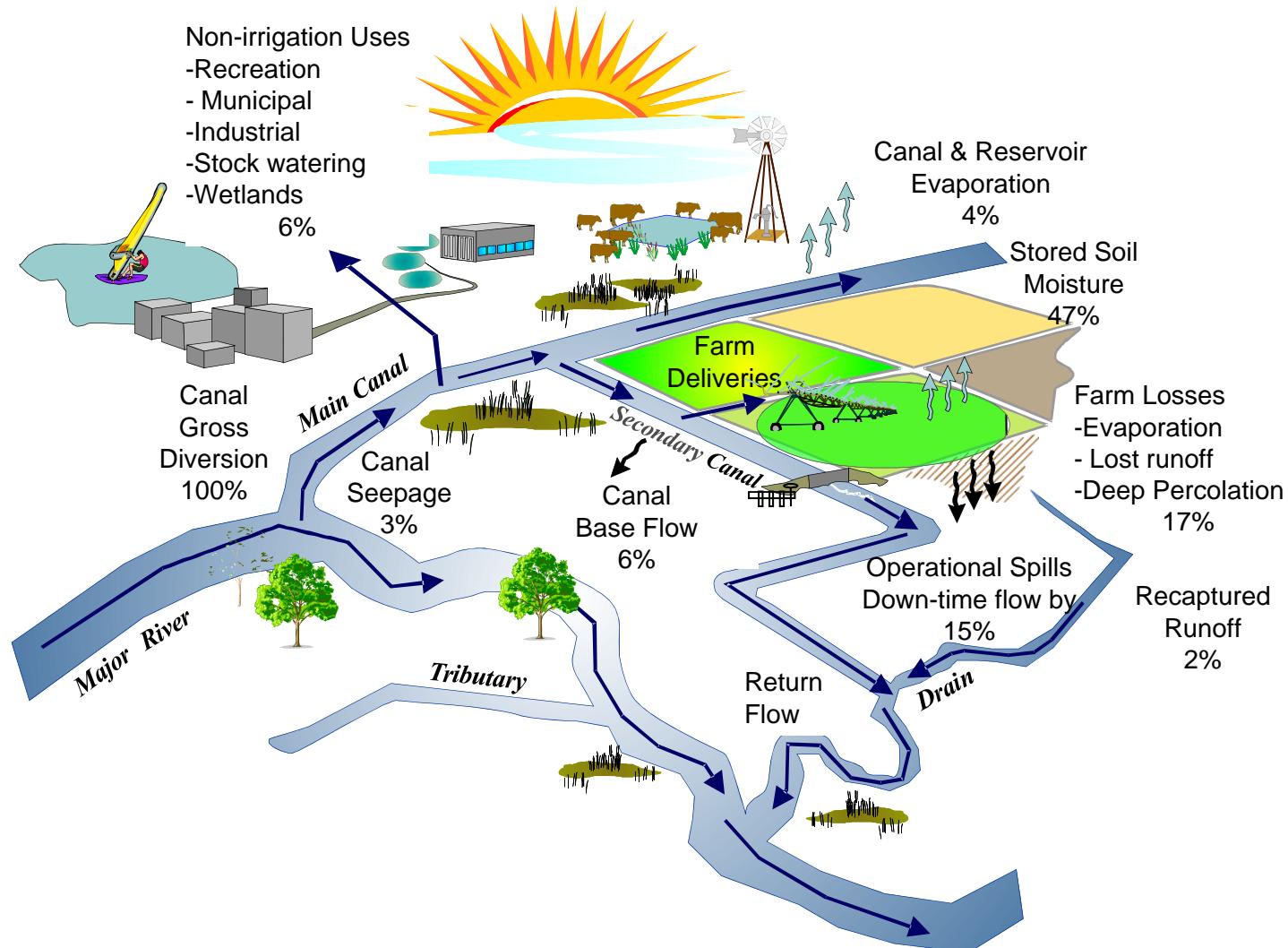
Bob Riewe, P.Ag.  
Basin Water Management Branch  
Alberta Agriculture and Rural Development

# Computer Modeling – The “BLACK BOX”



# Irrigation Demand Model

1. Network Management Module (Irrigation District)
2. Irrigation Requirements Module (On-Farm)



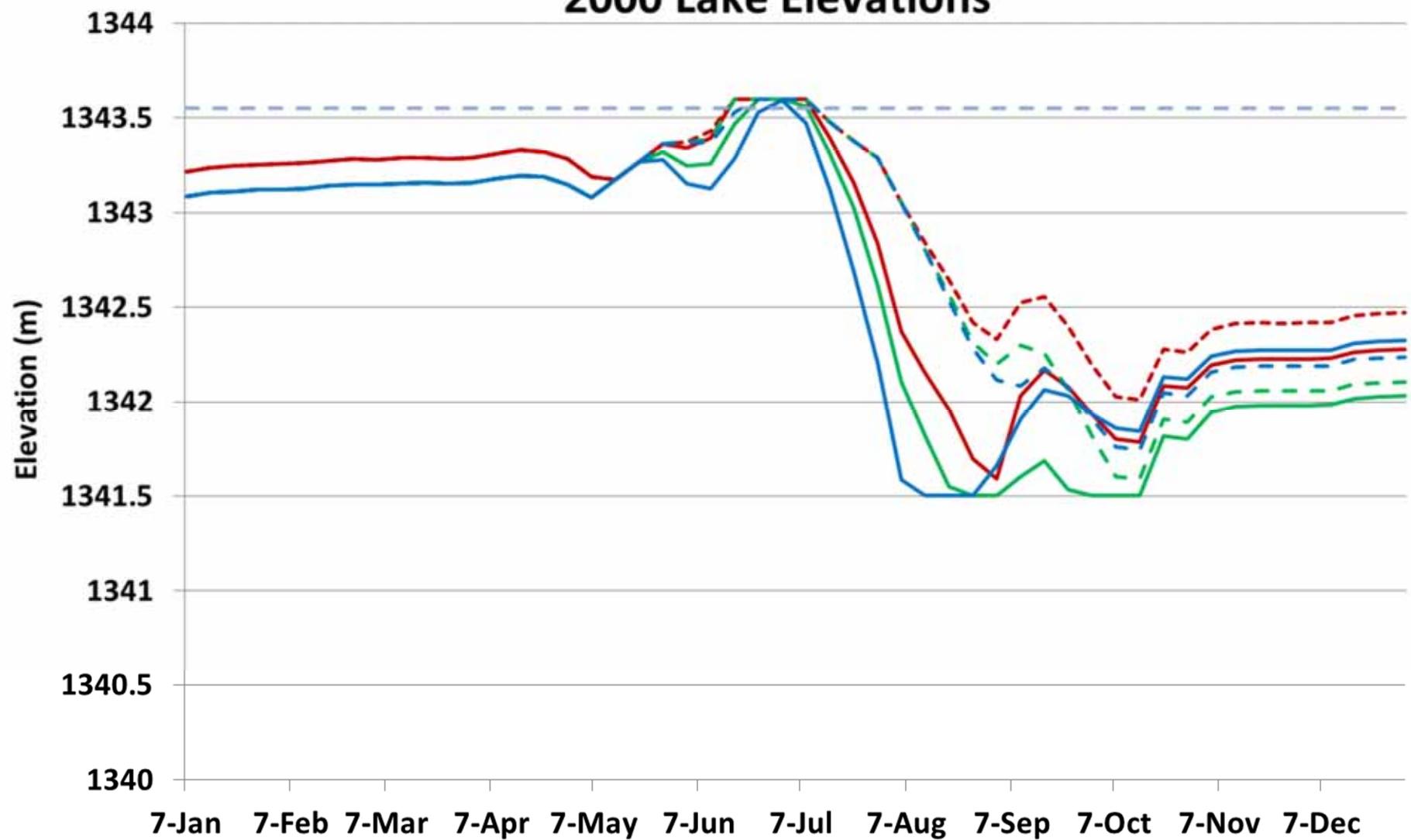
# **Data Requirements**

**1. Reservoir Elevations**

**2. Main Canal**

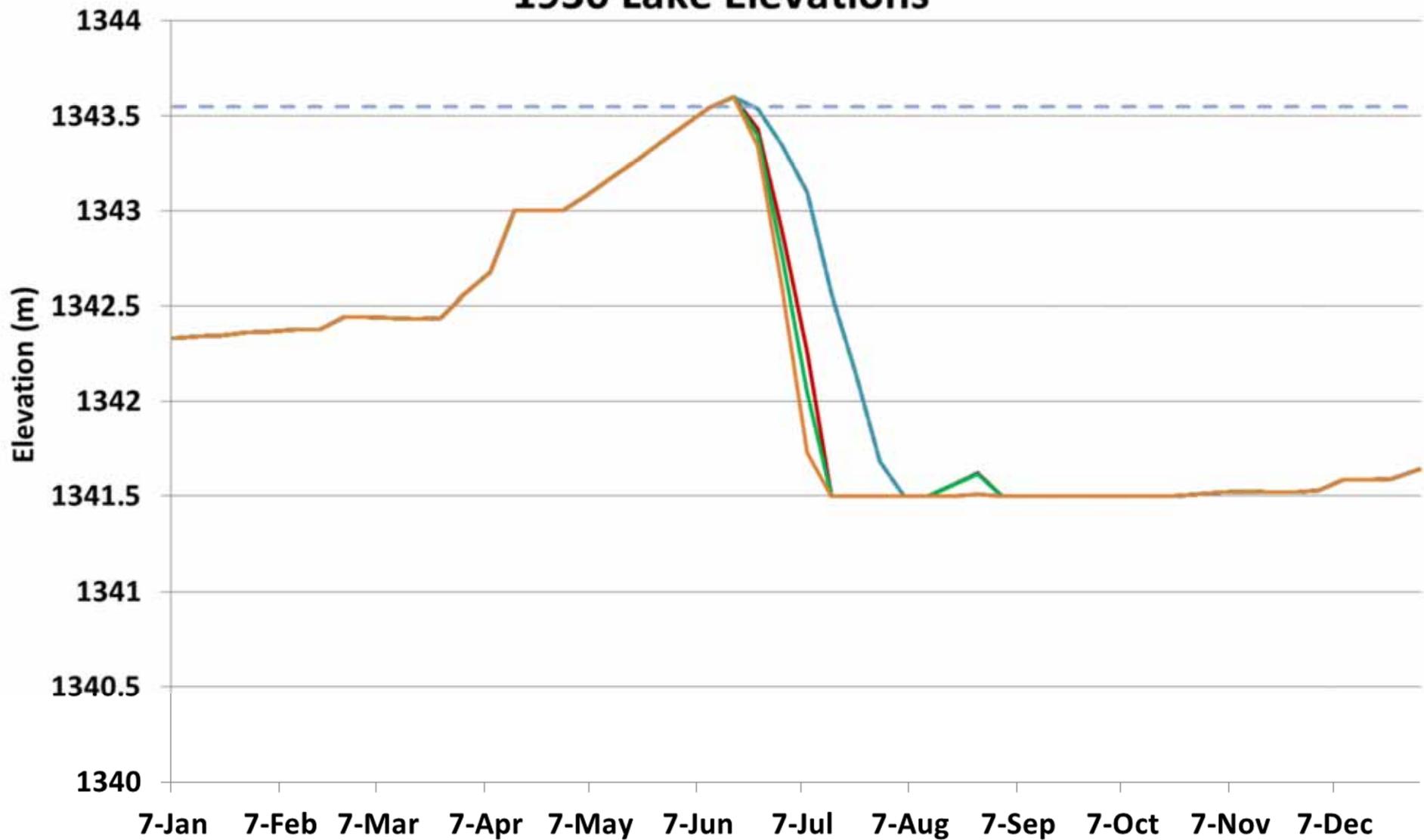
**3. Return Flow**

## Reservoir 207 2000 Lake Elevations

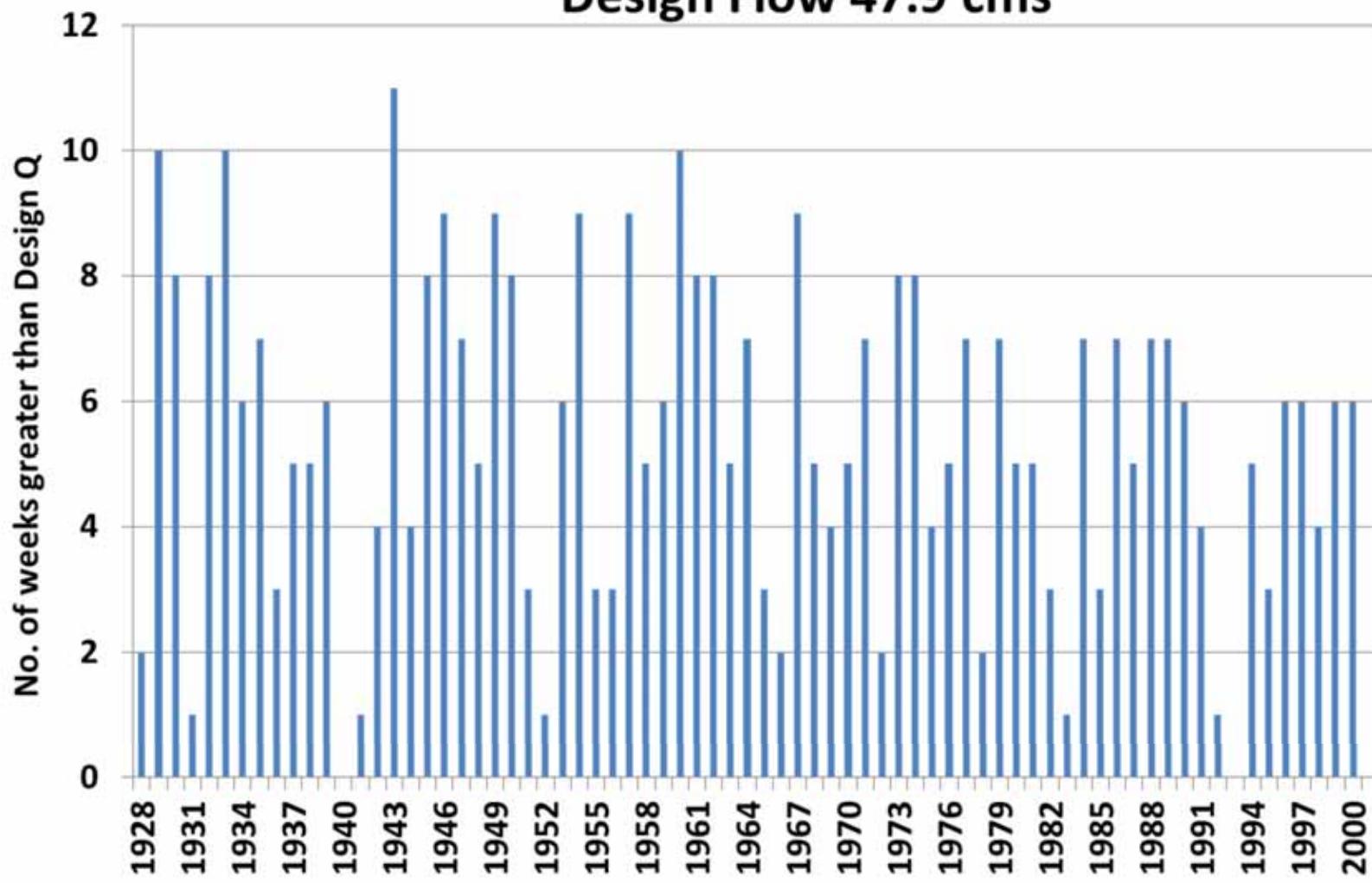


# Reservoir 207

## 1936 Lake Elevations



**Div Channel 486**  
**Design Flow 47.9 cms**



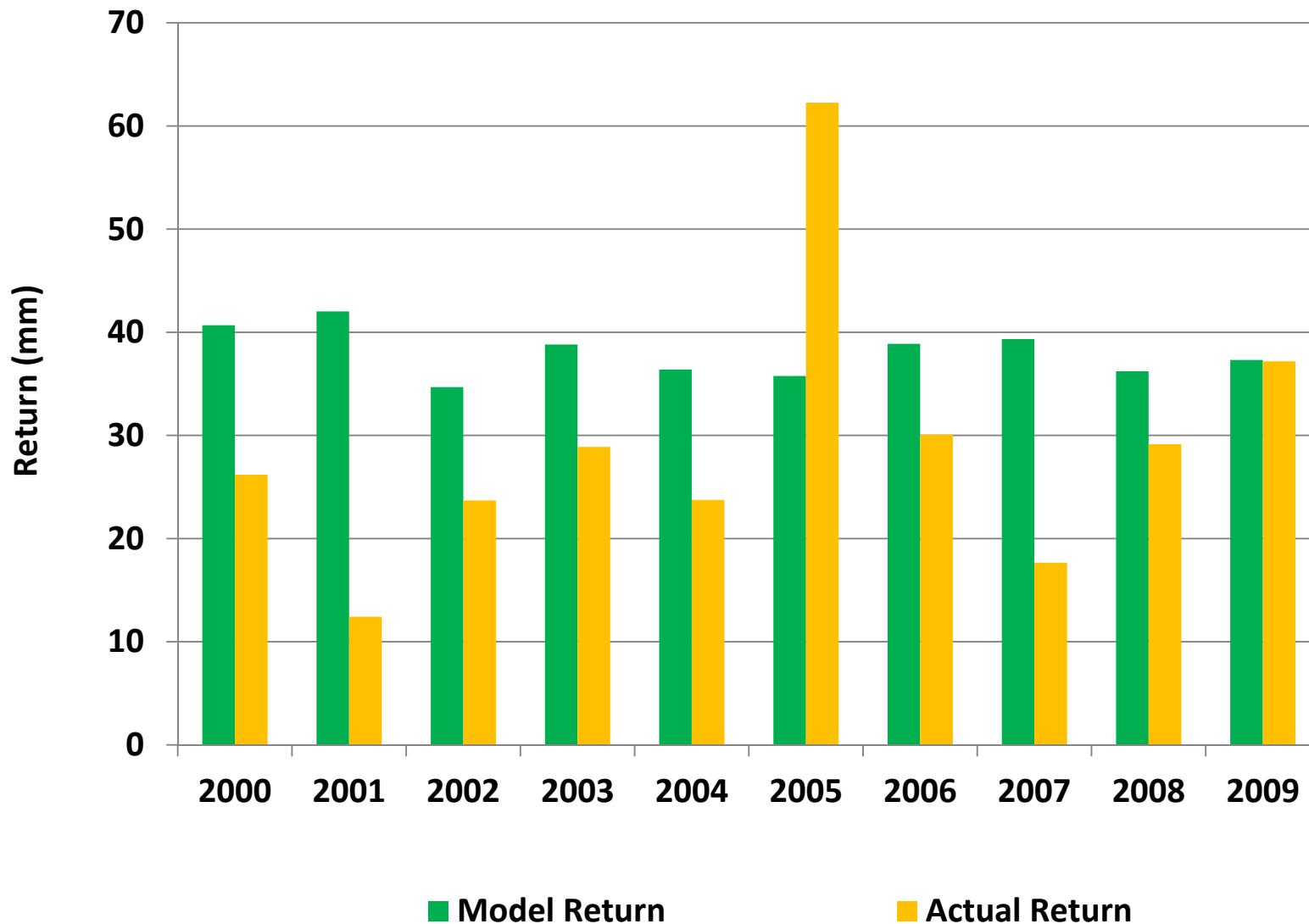
**31 weeks of diversion**

## Number of weeks above the Design Q of 47.9 cms

Flow (cms)	48	50	55	58	61	64	67	70	73	76	79	82
	2	2	0	0	0	0	0	0	0	0	0	0
10	8	5	5	5	5	3	3	1	0	0	0	0
8	7	6	6	5	5	4	3	3	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
8	7	6	5	4	4	2	1	0	0	0	0	0
10	9	5	5	4	3	3	2	1	0	0	0	0
6	6	5	5	5	4	4	3	2	0	0	0	0
7	6	5	5	4	4	3	3	2	0	0	0	0
3	3	2	1	1	1	1	1	1	0	0	0	0
5	4	1	0	0	0	0	0	0	0	0	0	0
5	5	5	5	4	3	3	2	1	0	0	0	0
6	6	6	6	6	6	4	3	3	3	1	1	1

Note: 31 weeks of flow in the canal.

# SMRID



A landscape photograph featuring a vibrant rainbow arching across a dark, cloudy sky. Below the sky is a field of bright yellow flowers, likely canola, with a fence line and some green trees in the background.

**Questions or Comments?**