

Wisconsin Valley Improvement Company

WVIC Overview

Wisconsin Valley Improvement Company

COMPANY PURPOSE

- **PROVIDE UNIFORM FLOW ON THE WISCONSIN RIVER**
- **COORDINATE DAM OPERATIONS ALONG THE RIVER**

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METHOD

- **OWN AND OPERATE 21 WATER STORAGE RESERVOIRS**
- **STORE WATER DURING HIGH-FLOW PERIODS**
- **RELEASE WATER DURING LOW-FLOW PERIODS**
- **MAINTAIN COMMUNICATIONS NETWORK WITH HYDROPLANT OPERATORS**

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ORGANIZATION

- **PRIVATE CORPORATION**
- **OWNED BY WISCONSIN RIVER HYDROPLANT OWNERS**
 - **PAPER MILLS**
 - **UTILITIES**
- **FUNDED BY HYDROPLANT OWNERS**
- **REGULATED BY FERC, WDNR, PSCW, OTHERS**
- **UNIQUE, NORMALLY GOVERNMENT FUNCTION**

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Energy for your Lifestyle



ALLIANT ENERGY



Tomahawk Power & Pulp

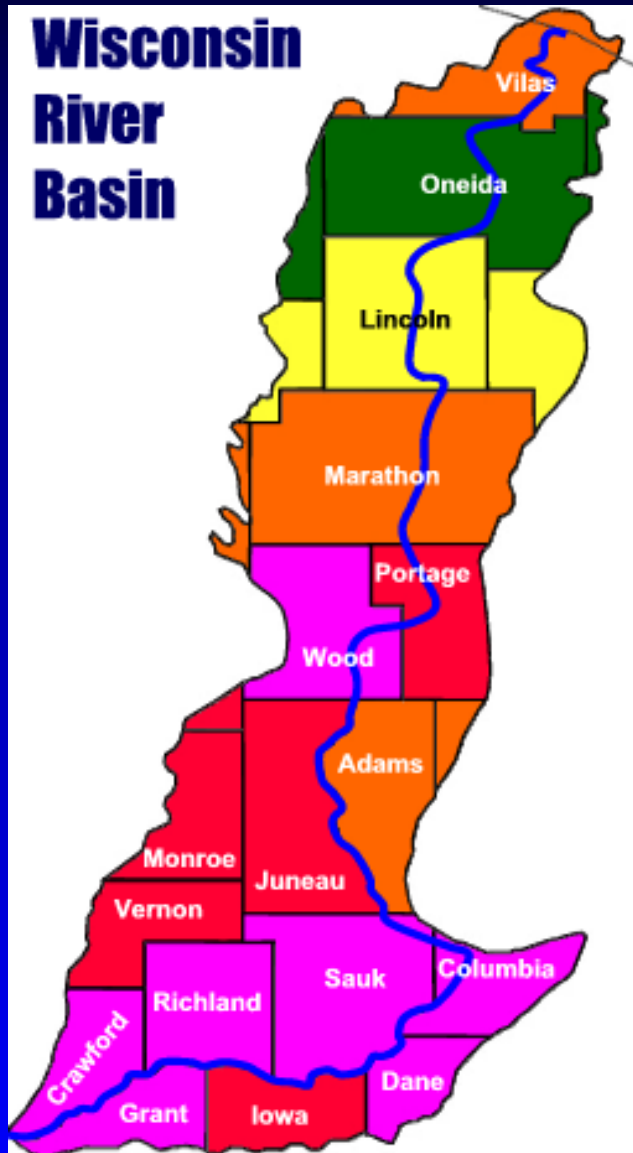


wausauPAPER®



**Wisconsin River
Power Company**

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WISCONSIN RIVER

- **LARGEST RIVER IN STATE**
- **430 MILES LONG**
- **1,050-FT FALL**
- **12,000 MI² DRAINAGE AREA**
- **90+ TRIBUTARIES**
- **AVERAGE FLOW**
 - **5 CFS AT SOURCE**
 - **12,000 CFS AT MOUTH**

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River Developments

- **21 Reservoirs**
 - **Control river flow**
 - **Owned and Operated by WVIC**
 - **5 Large Man-Made Reservoirs**
 - **Rainbow, Willow, Rice (Nokomis), Spirit, Eau Pleine**
 - **75% of storage**
 - **16 Natural-lake Reservoirs**

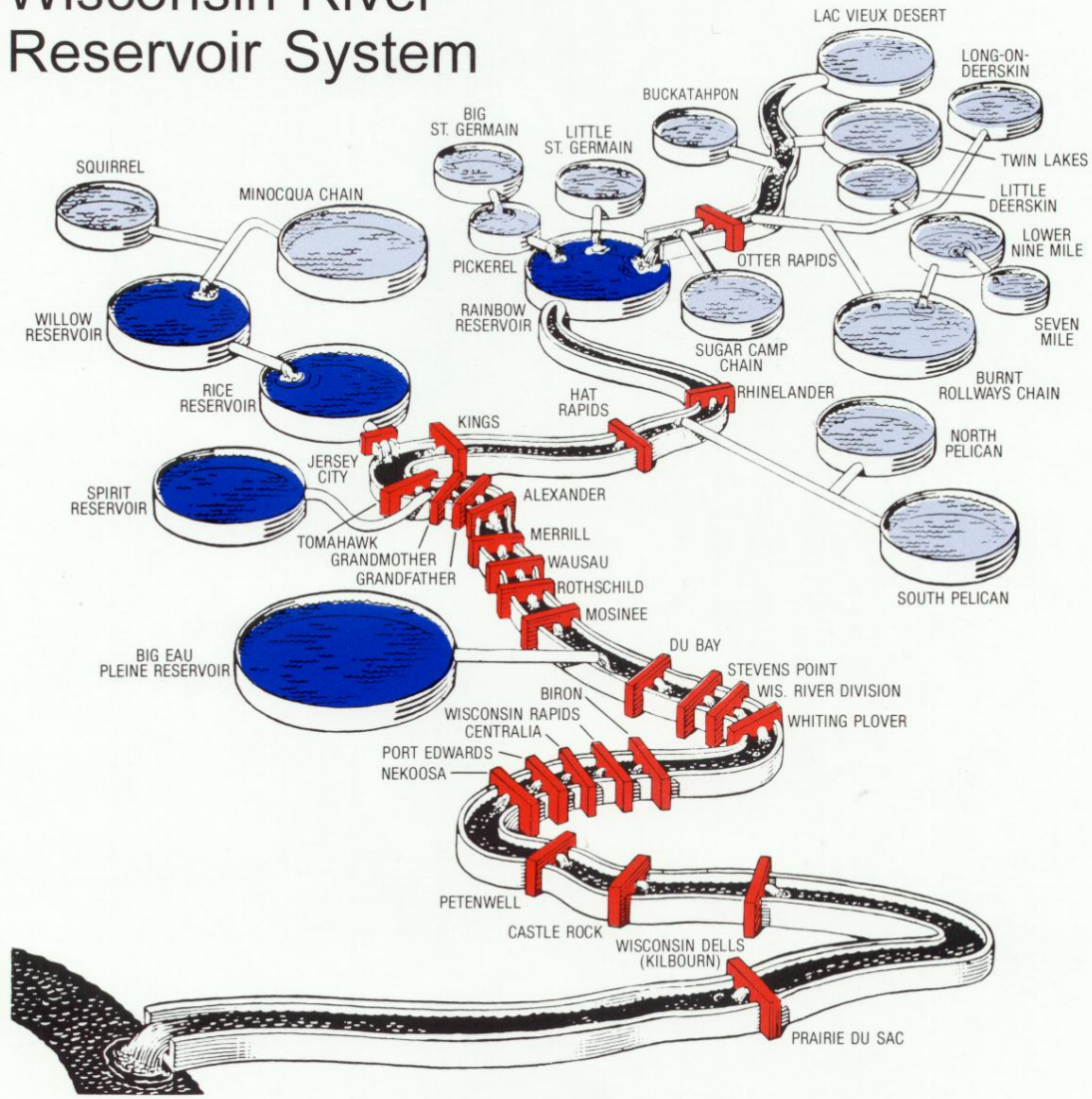
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River Developments

- **25 Hydroelectric Dams**
 - **Owned and Operated by WVIC Owner Companies**
 - **Provide electric power for**
 - **Paper production**
 - **Utility customers**

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Wisconsin River Reservoir System



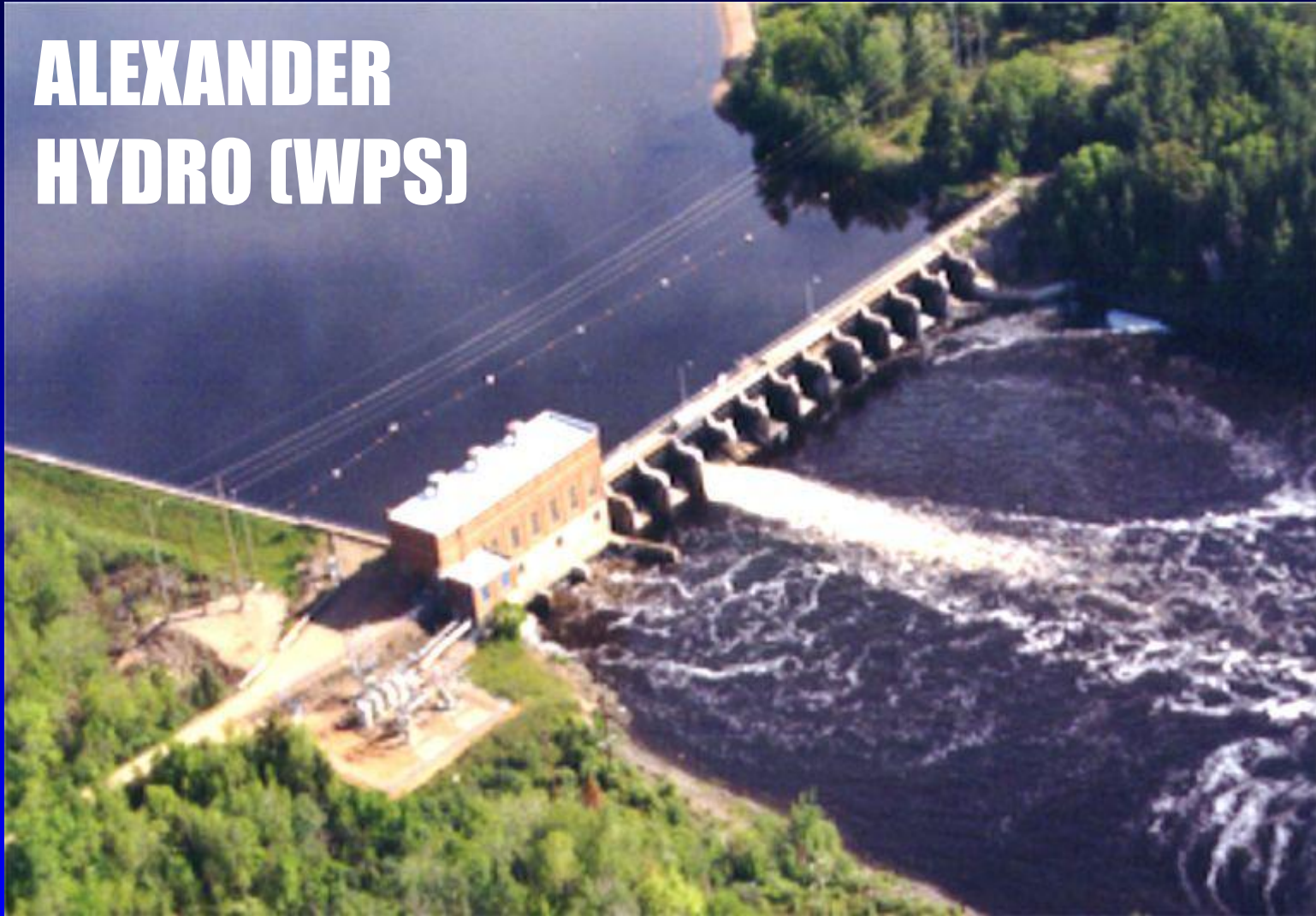
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**WVIC'S
WILLOW
RESERVOIR**

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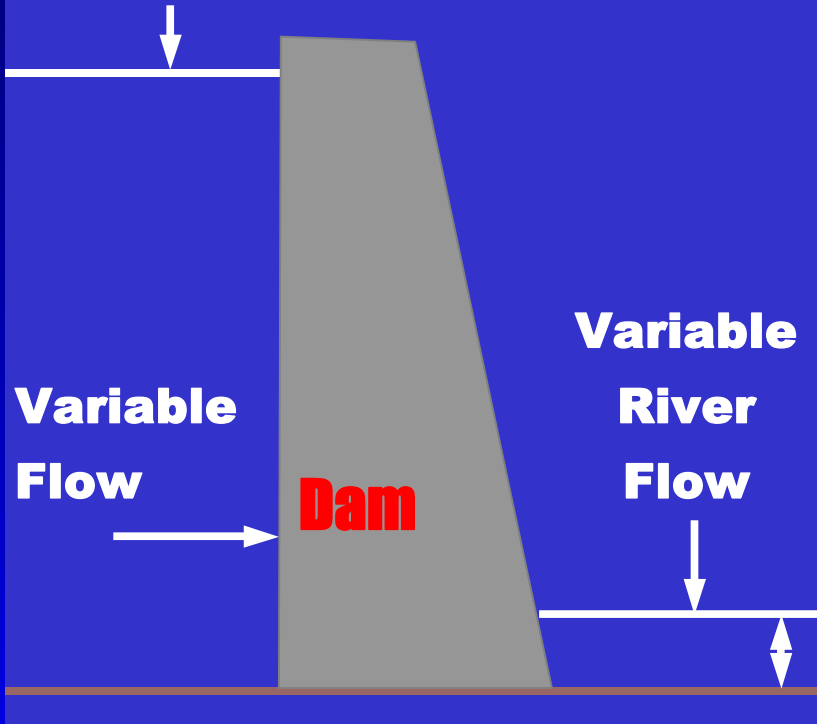
ALEXANDER HYDRO (WPS)



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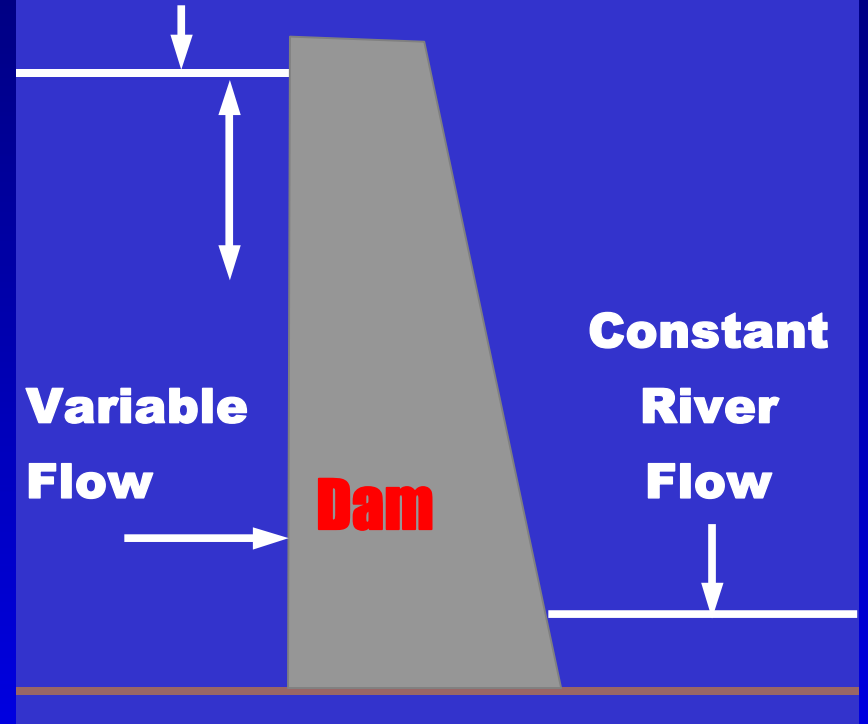
HYDROELECTRIC DAM

Constant Lake Level

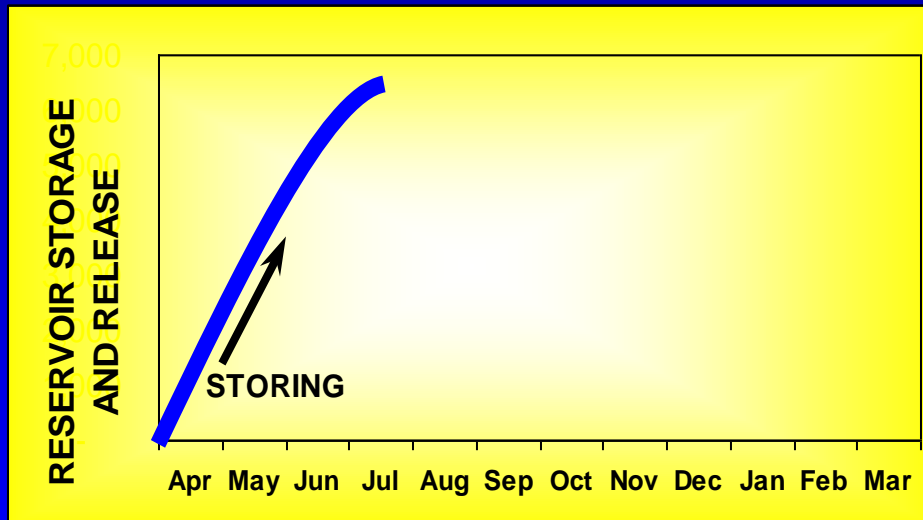
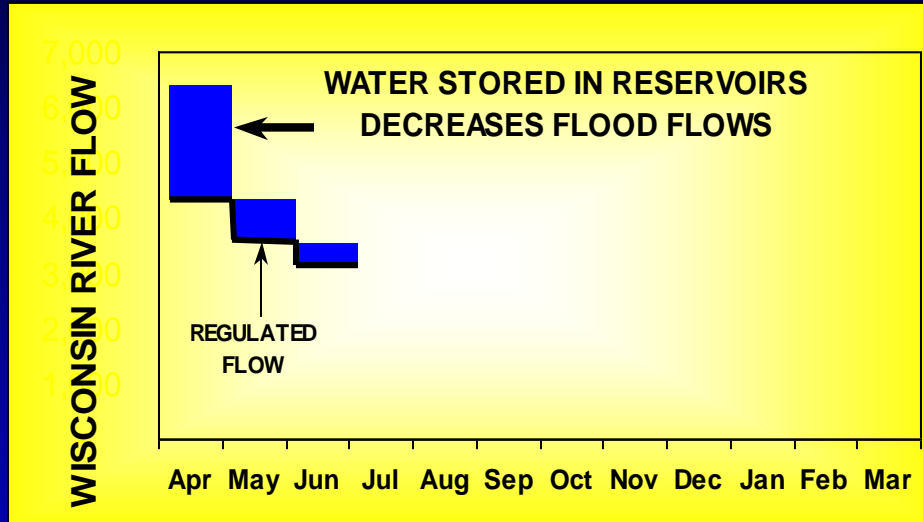


RESERVOIR DAM

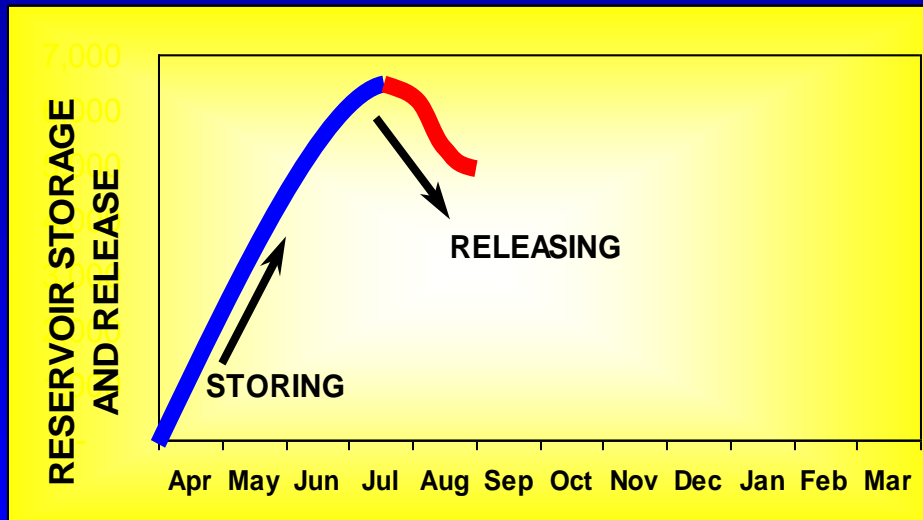
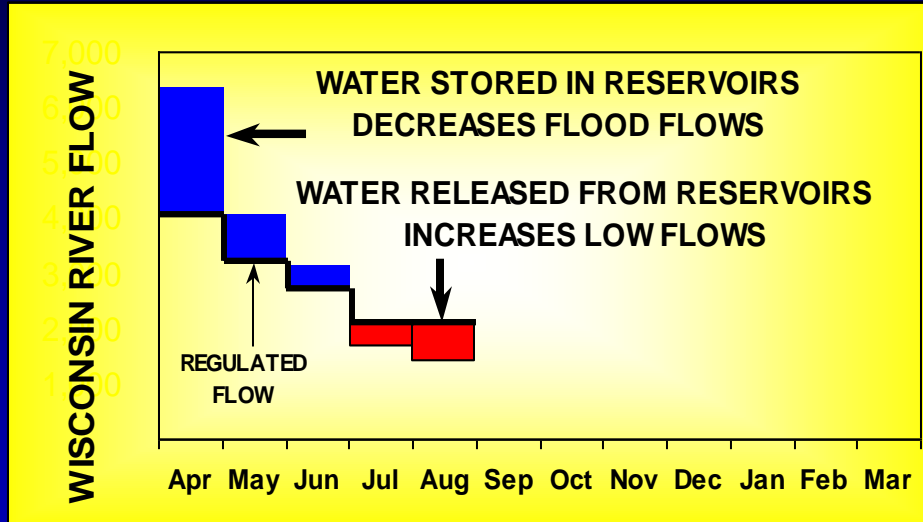
Variable Lake Level



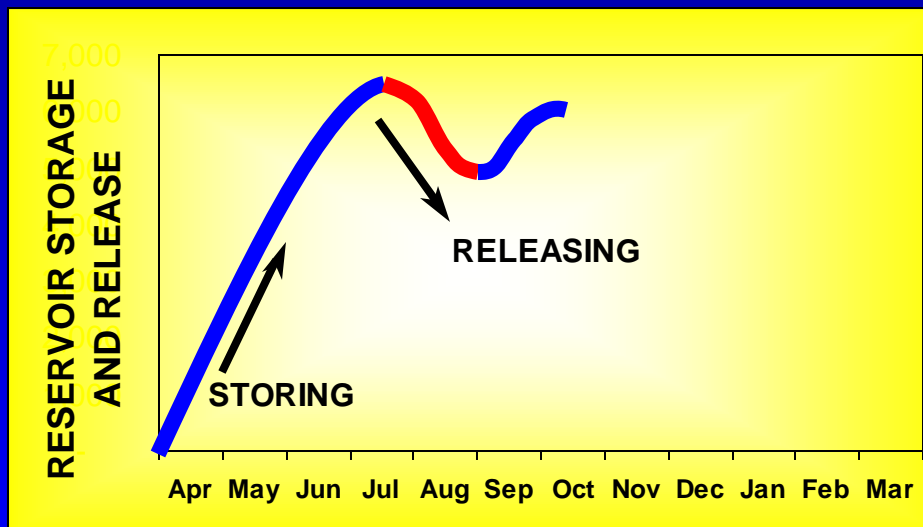
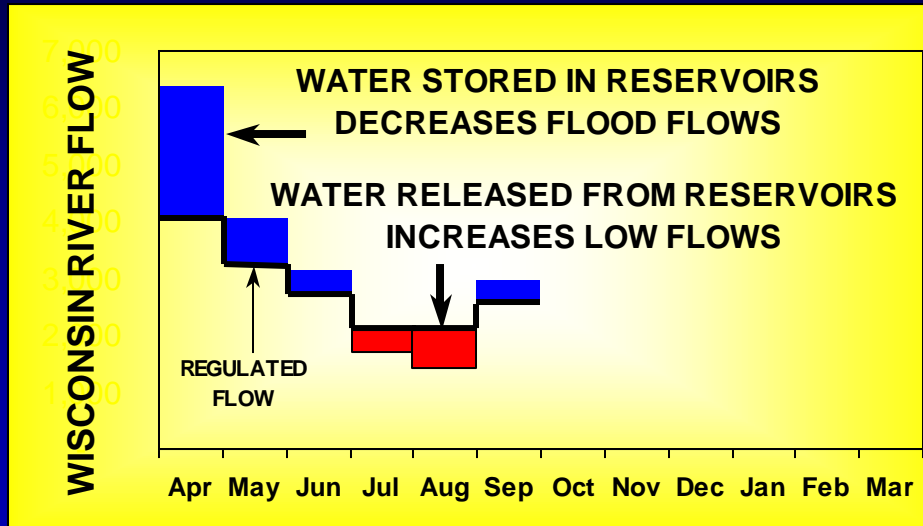
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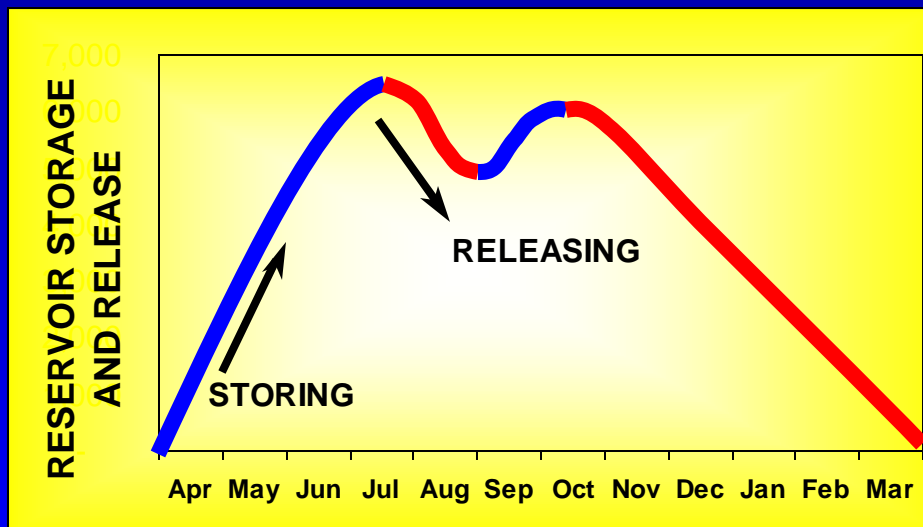
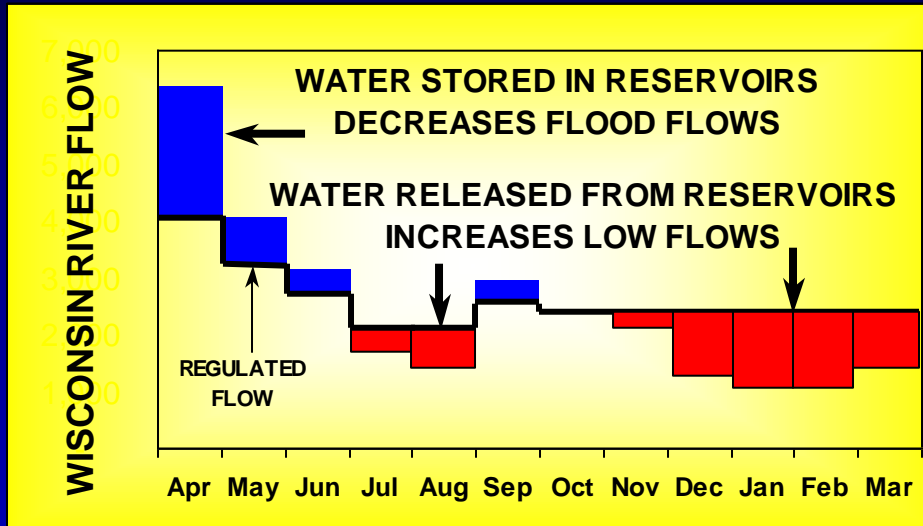
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North Pelican Chain Operation

- **Winter drawdown**
 - 2.0-2.5 feet
 - November through March
- **Spring refill**
 - Start in mid to late March when snow melts
 - Refilled by mid-April
- **Late Spring – Summer - Fall**
 - Maintain lake at Summer Target Level

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BENEFITS

- **INCREASED HYDROPOWER PRODUCTION**
 - **150 MWH/YEAR**
 - **SERVE 75,000 PEOPLE**
 - **CLEAN & RENEWABLE**
- **FLOOD CONTROL**
 - **REDUCE PEAKS BY 20-30%**
 - **DECREASED FLOOD DAMAGE**

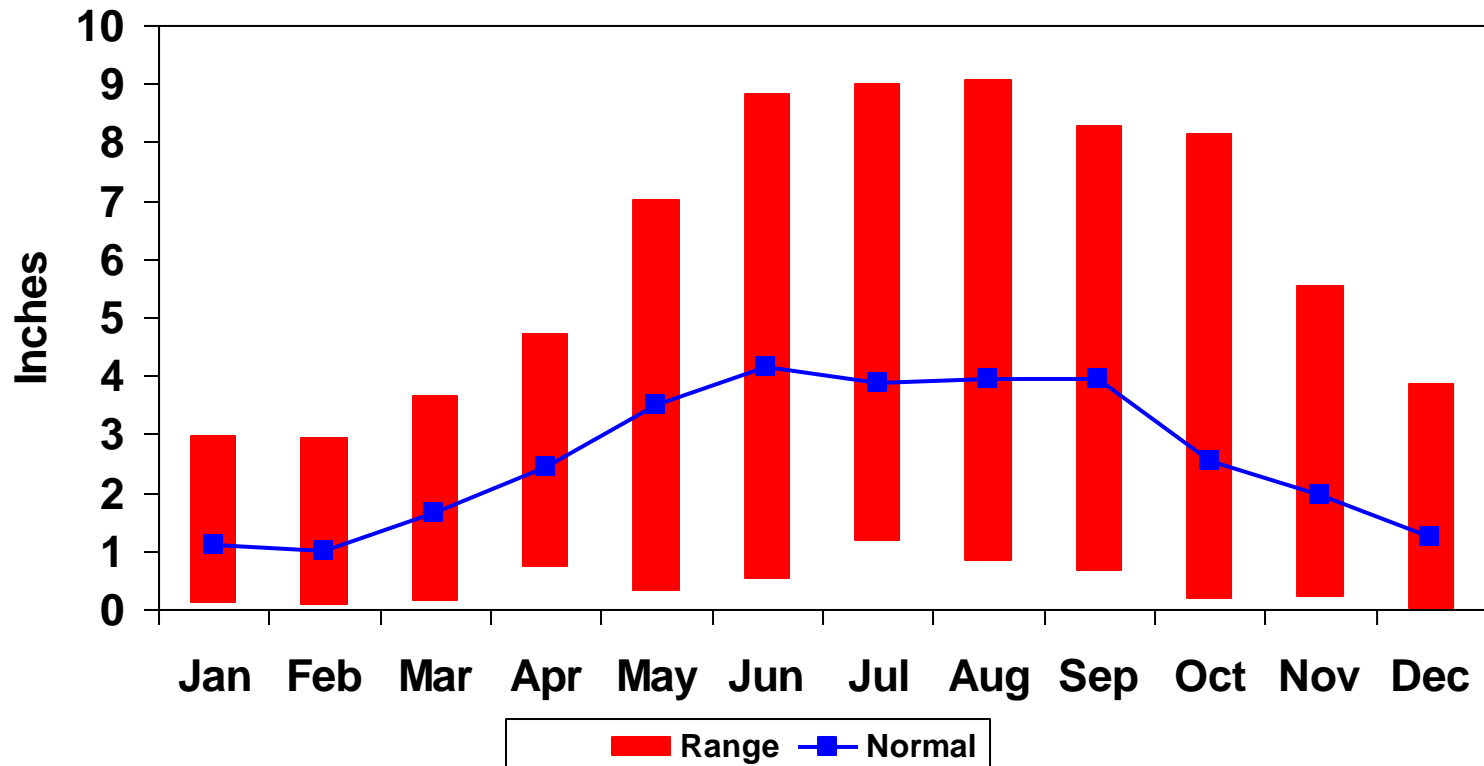
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BENEFITS

- **IMPROVED WISCONSIN RIVER WATER QUALITY**
 - **HIGHER FLOW -> HIGHER DISSOLVED OXYGEN**
- **RECREATION**
 - **RESERVOIRS ADD 25,000 ACRES OF WATER**
 - **UNIFORM FLOW -> MORE RIVER USE**

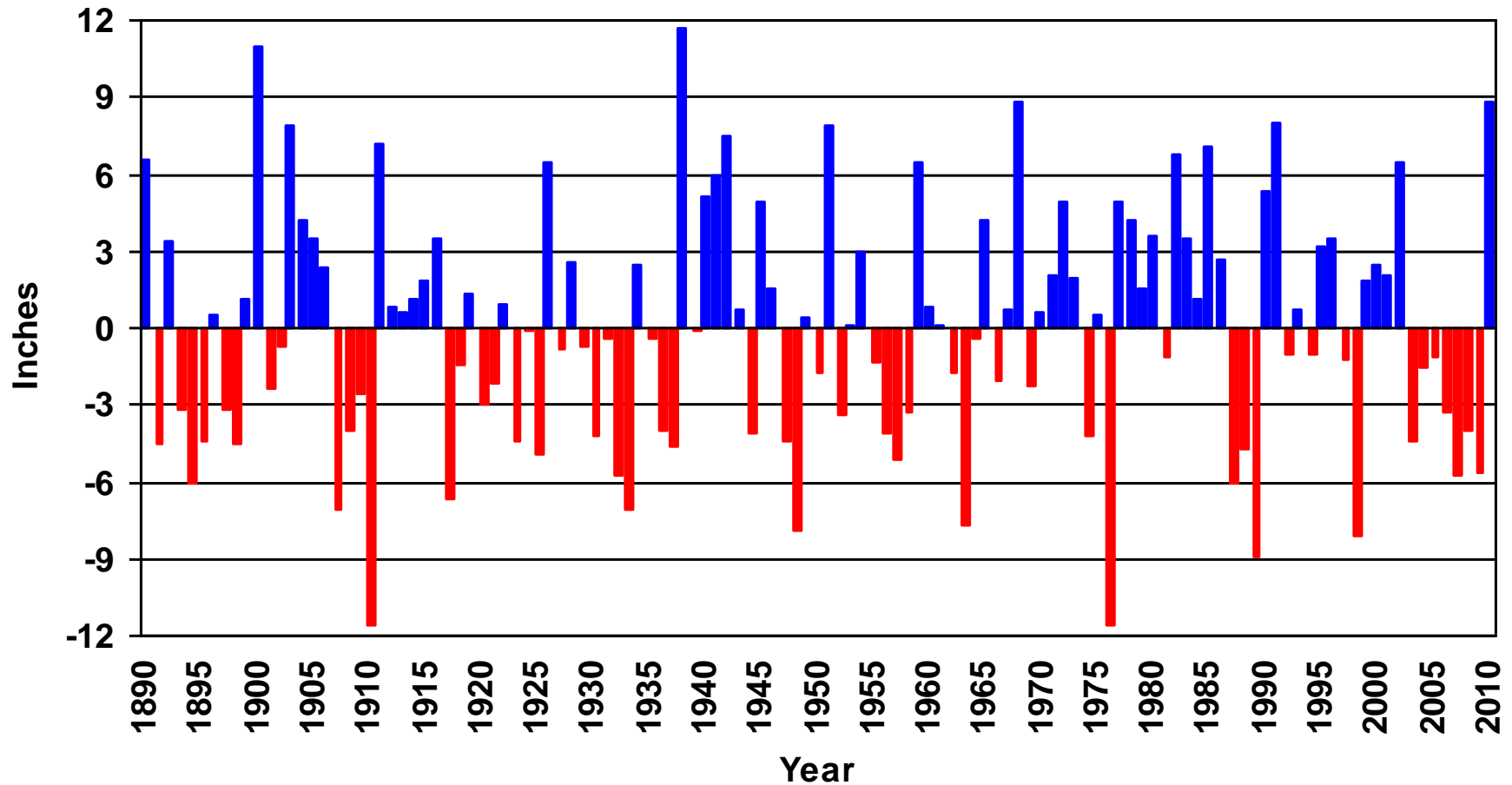
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Wisconsin River Basin Precipitation
Annual Normal: 31" Annual Range: 19" - 43"



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Wisconsin River Basin Annual Precipitation
Departure From Normal (1890-2010)



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THANK YOU