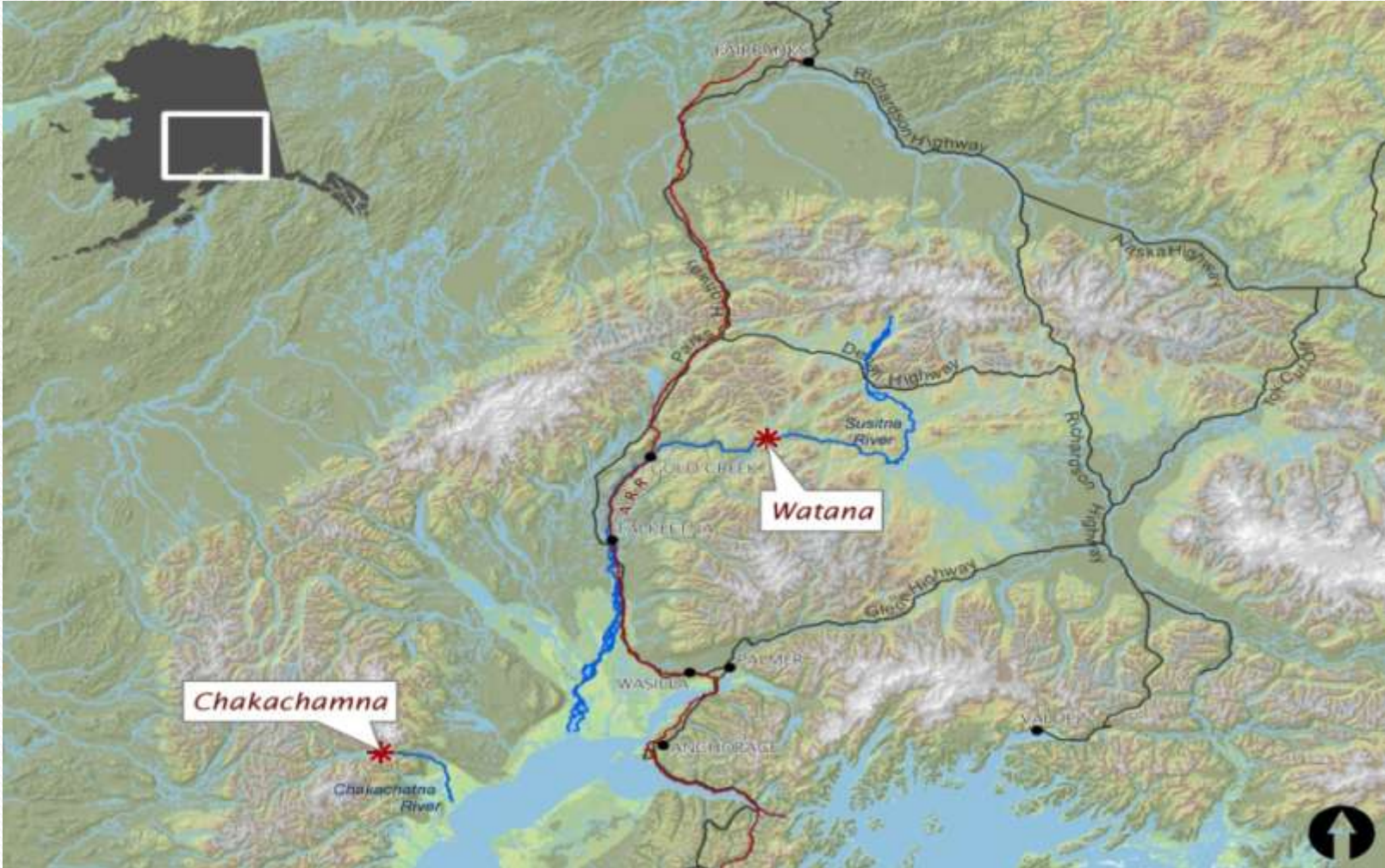


Railbelt Large Hydroelectric

Commonwealth North



Railbelt Hydro Locations



Watana Damsite



Susitna Low Watana



Bradley Lake Hydroelectric



Al Wehdah Hydroelectric



Hydrology: Influences and Statistics

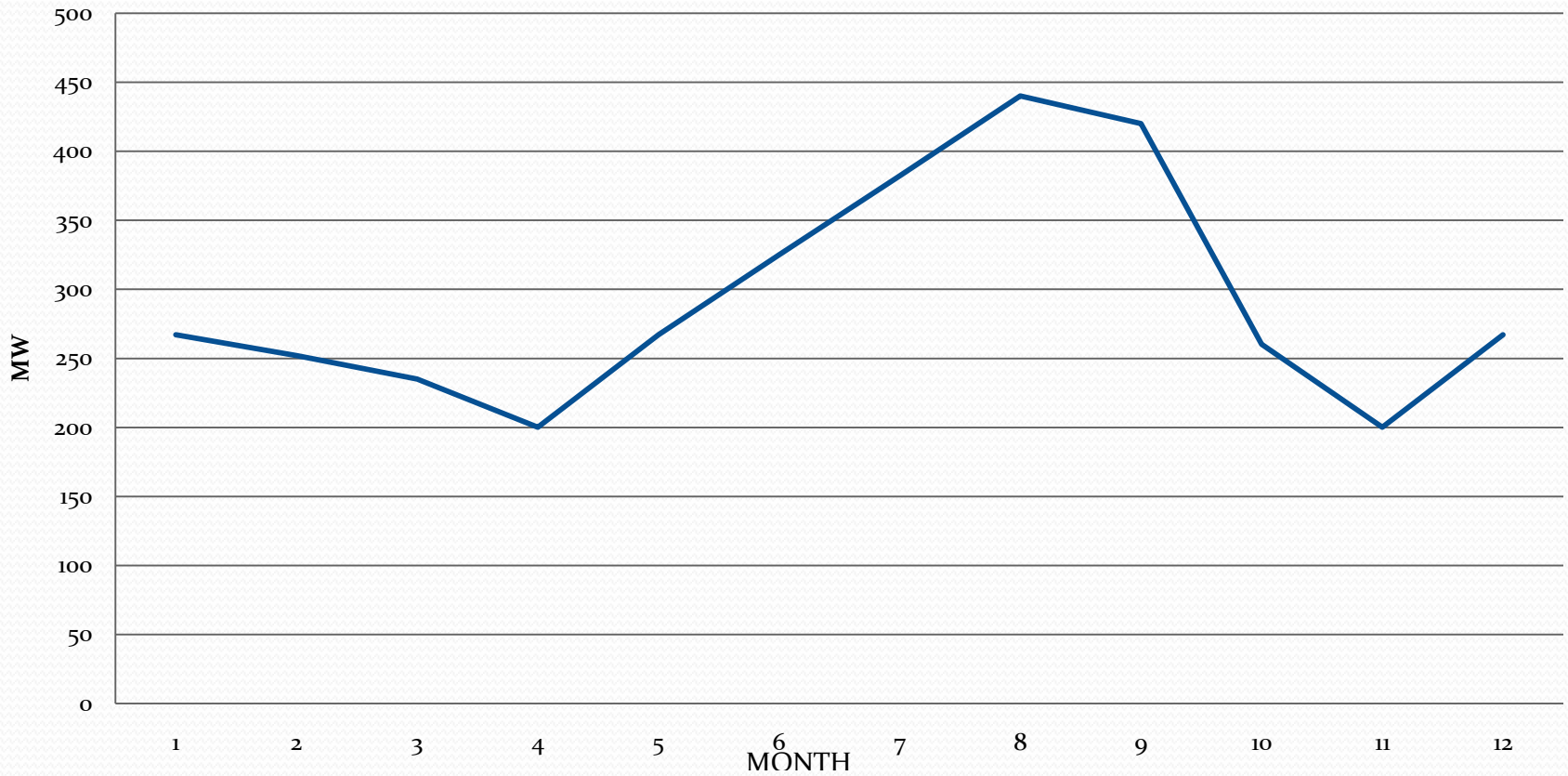
- Preliminary Hydrological Review
 - USGS gage at Gold Creek 50 years of flow data
 - Little difference in flow between different mini-climate periods

- Glacial Influences
 - Glaciers act to store and delay seasonal runoff
 - Significant source of water during the summer season

- Sediment
 - Majority settle out in reservoir. Water downstream clearer
 - Storage area would not be impacted for hundreds of years

Average Seasonal Power Generation

Power Generation



Susitna Energy & Environmental:

- **Energy**
 - **Installed capacity 600 MW**
 - **Average energy 2600 GWhr/yr**
 - **About 50% of annual railbelt energy**

- **Environmental**
 - **Reservoir 39 miles long & maximum of 2 miles wide**
 - **Site is approximately 30 miles above extent of significant salmon habitat**
 - **Susitna River downstream of dam will have the same annual flow with modified seasonal timing**
 - **Some fisheries impacts will be positive**
 - **Some loss of wildlife habitat**

Susitna Timeline:

- **Licensing**
 - **3.5 years - Prepare and file Final Application for License**
 - **3 years – FERC Processing and follow-up**
- **Construction**
 - **4.5 years Construction**

11 years until startup

Susitna Cost:

- **Cost (Feasibility-Conceptual Phase)**
 - **\$3.6B – RCC Gravity-Arch**
 - **\$4.5B – Embankment**
- **Cost of Energy – Assume State has 50% equity**
 - **\$0.06kw/hr if Finance \$2.25B, 30 year bonds, 6%**

Susitna Benefits

- **Greater than 100 year life**
- **Expandable for future growth**
- **Predictable, secure, clean, low cost energy**
- **Provides dispatchable energy and stabilizes the grid**
- **Investment in Alaska Infrastructure**
- **Alaskan jobs and funds stay in-state long term**
- **Hydro necessary to achieve States 50% renewable statewide energy policy**
- **State participation can make energy same cost as existing (~0.06kw/hr) and lower in the long term.**