



# Envisioning Alternative Aviation Fuel Supply Chains for the Northwest

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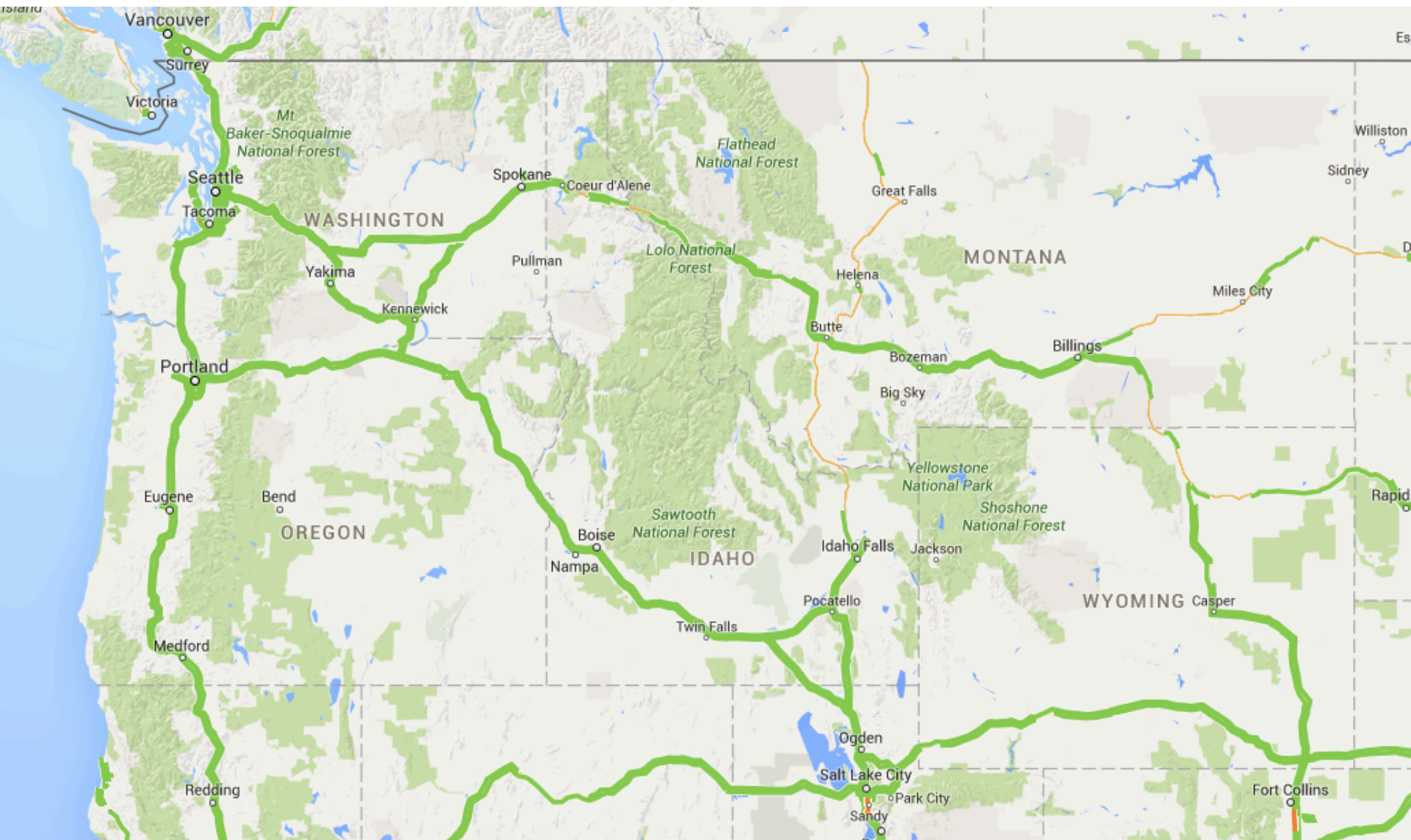
Tammi Laninga

Northwest Advanced Renewables Alliance



# NARA Region in Google Maps

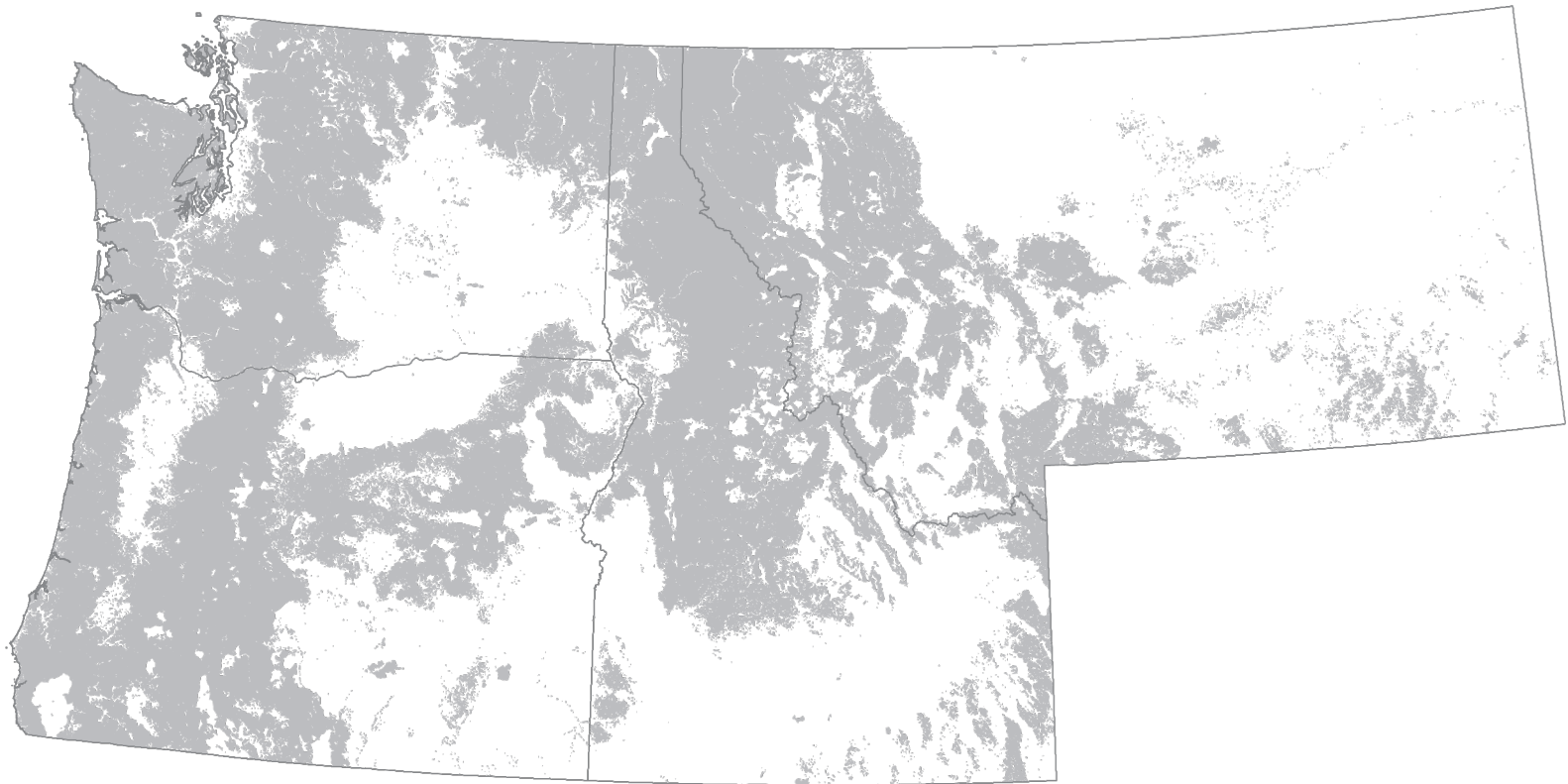
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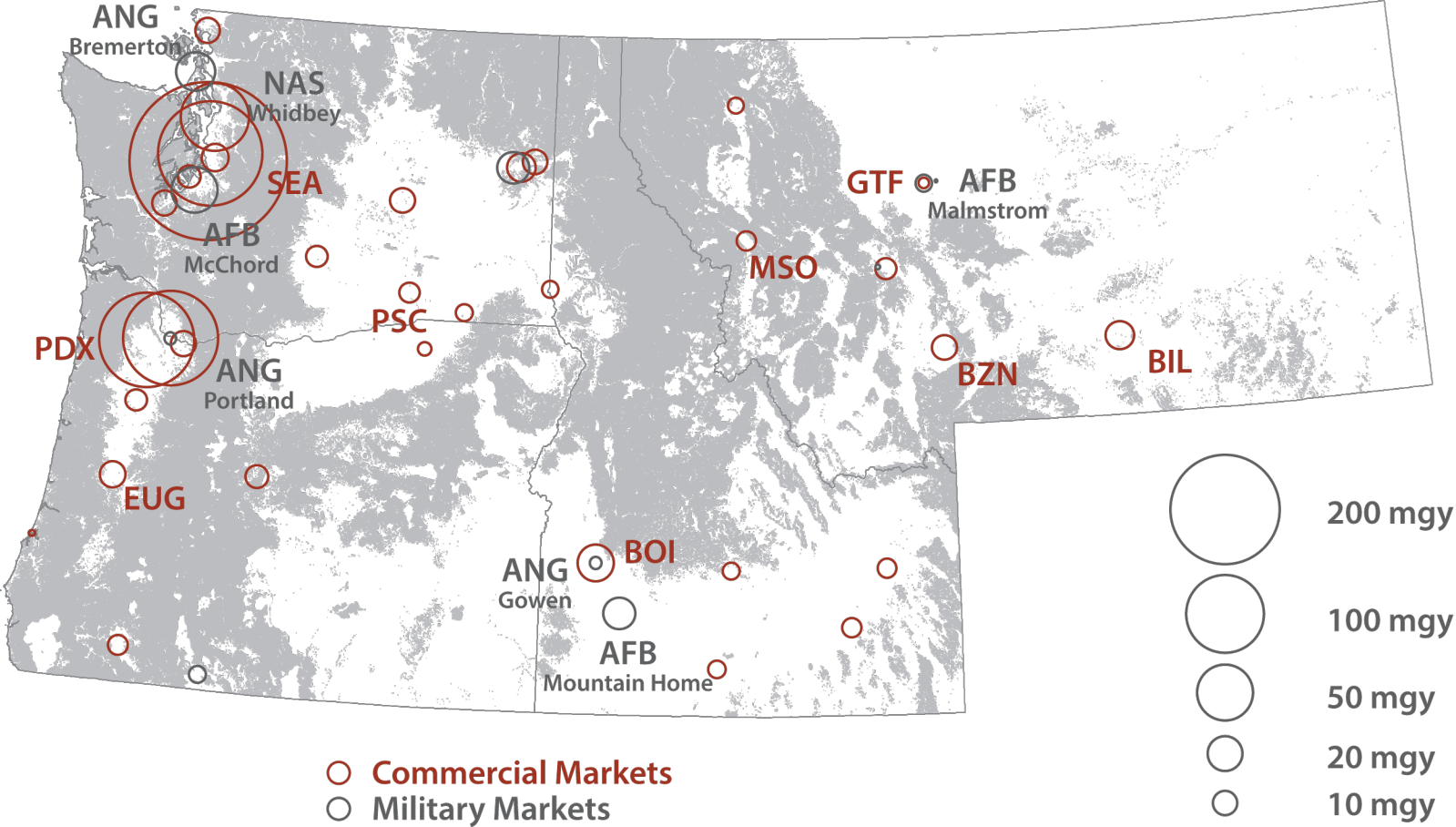
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# NARA Region Forest Cover

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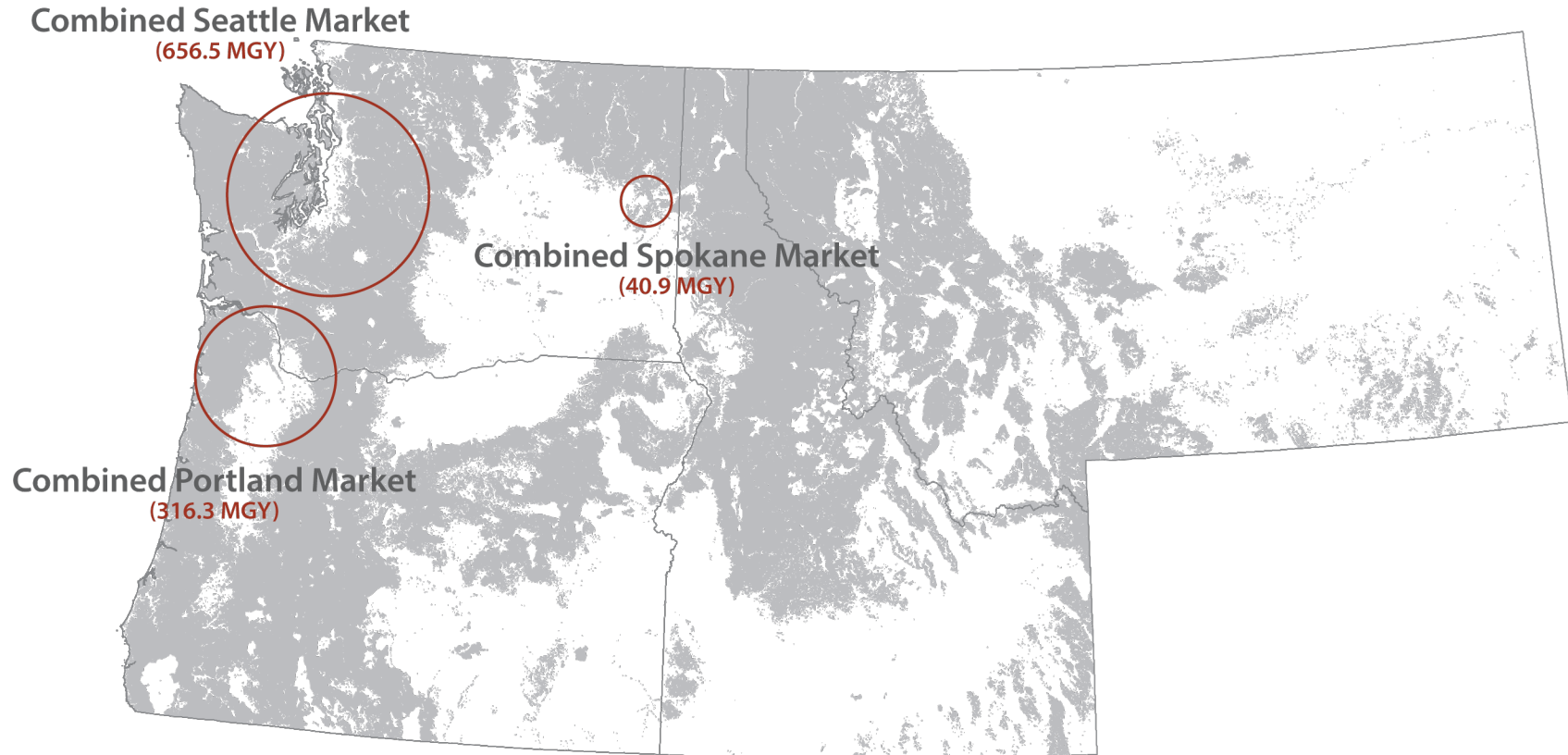
# Aviation Demand Centers





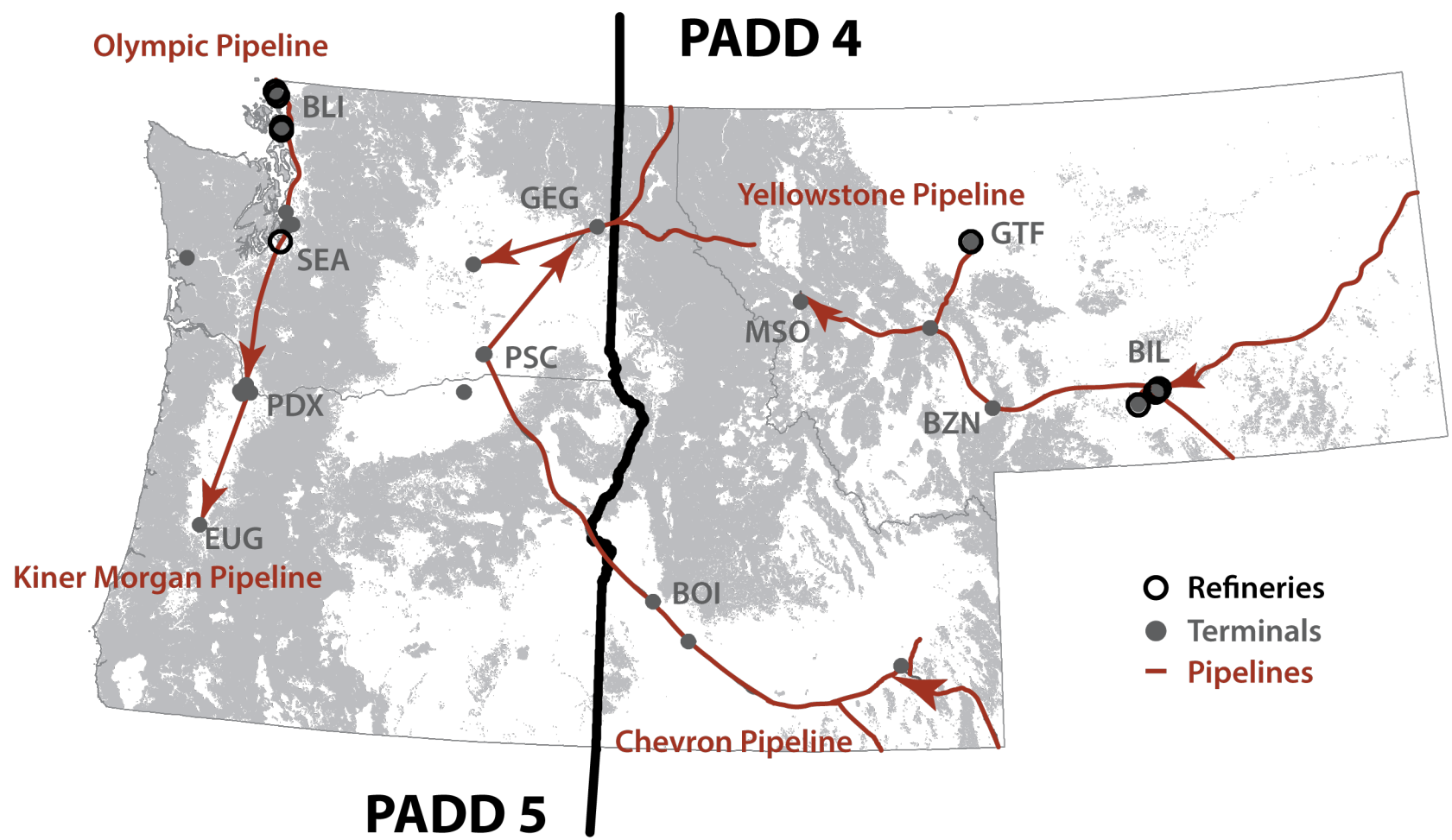
# Aviation Supply Focus

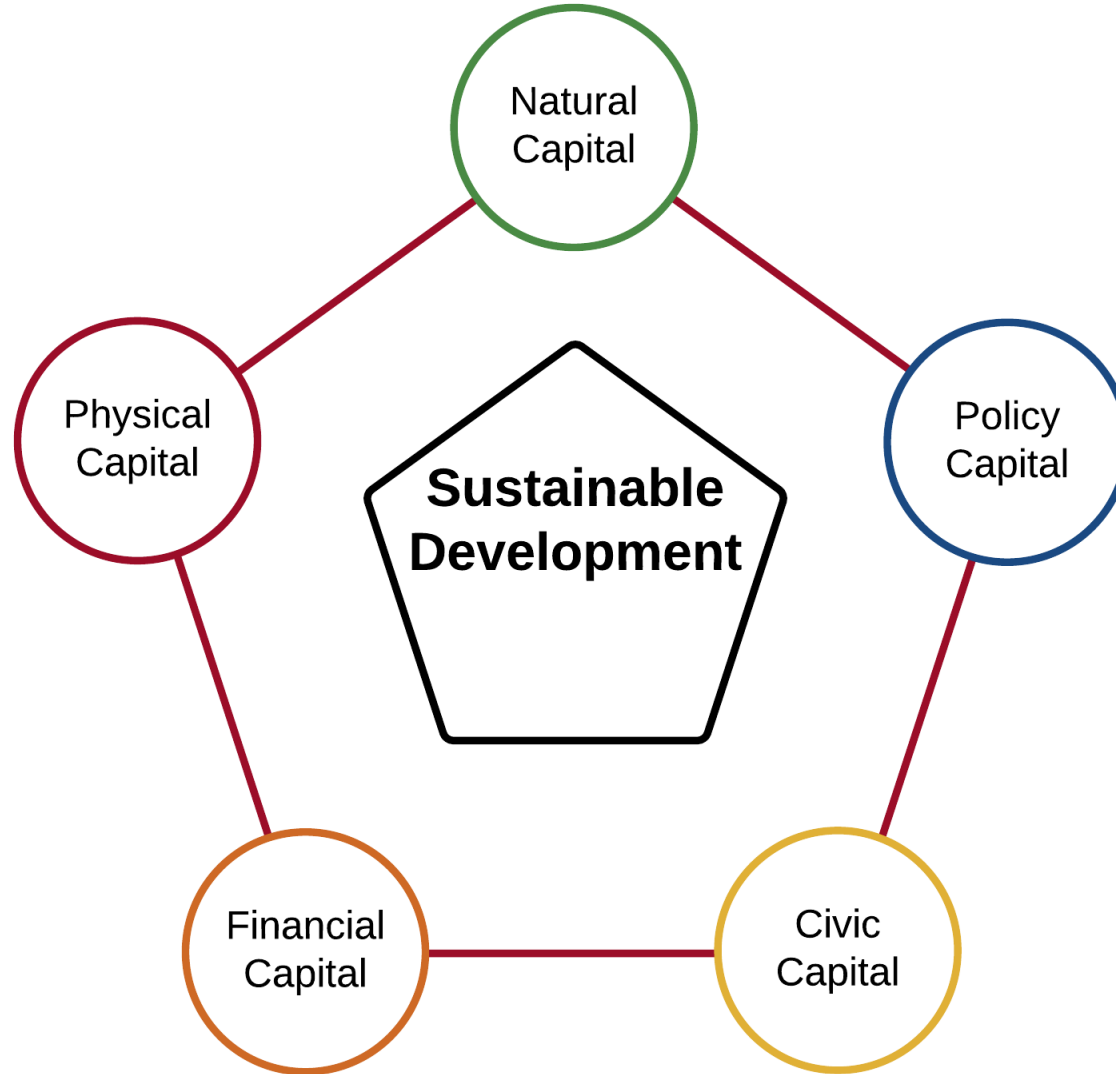
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# Refined Products Production & Distribution

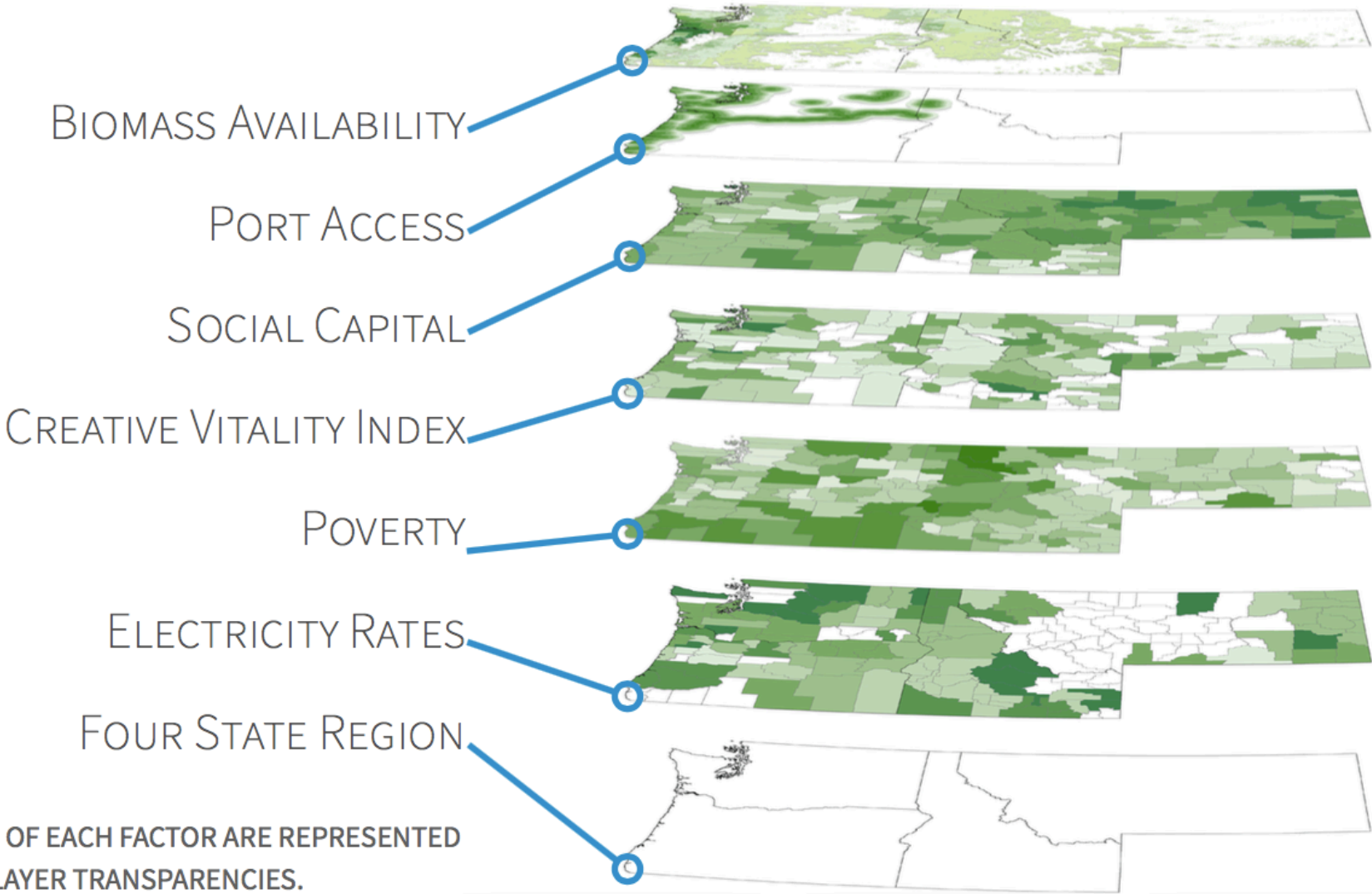
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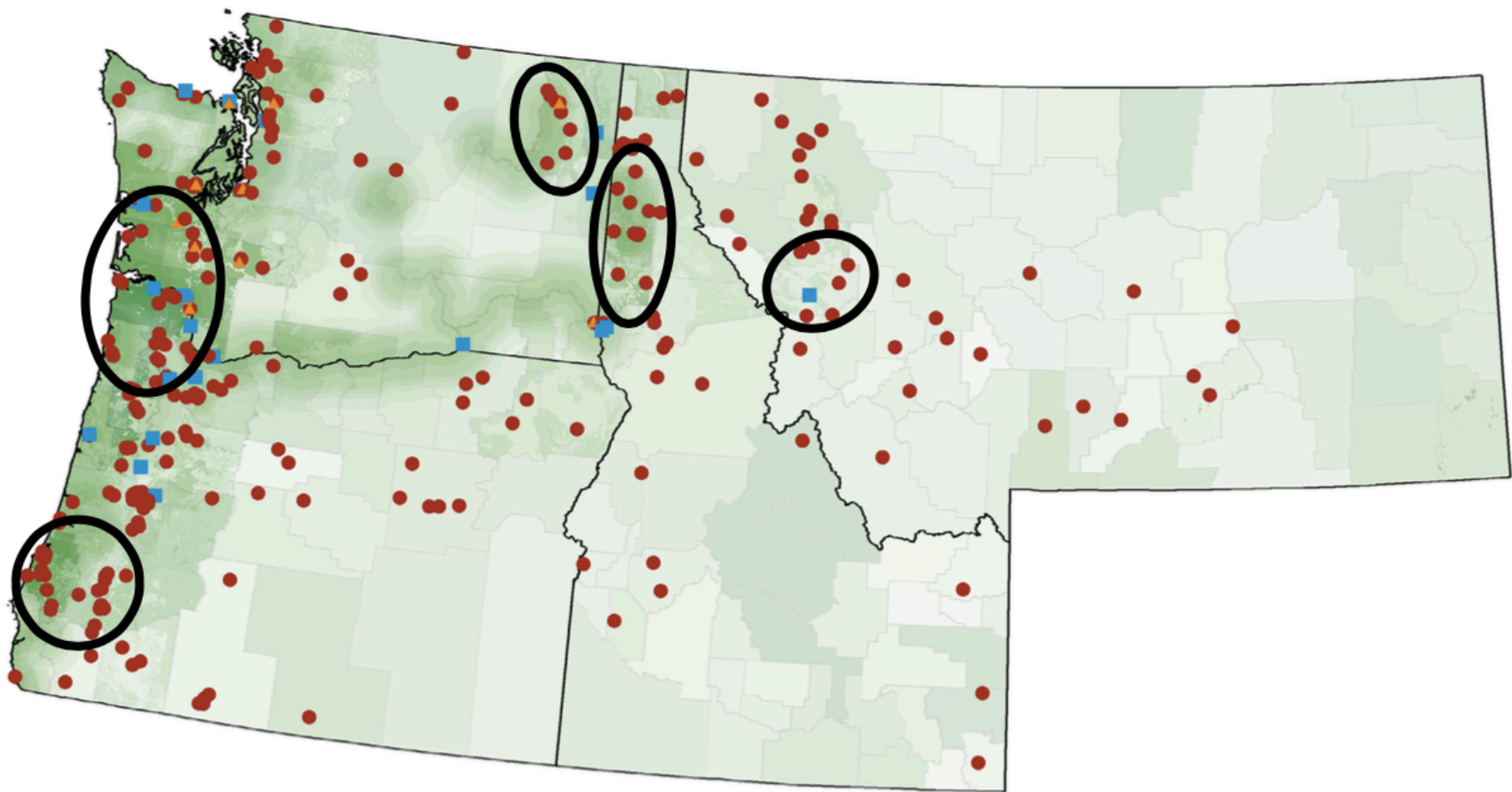
# Applied Community Capital Framework

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# Example Hot Spot Analysis

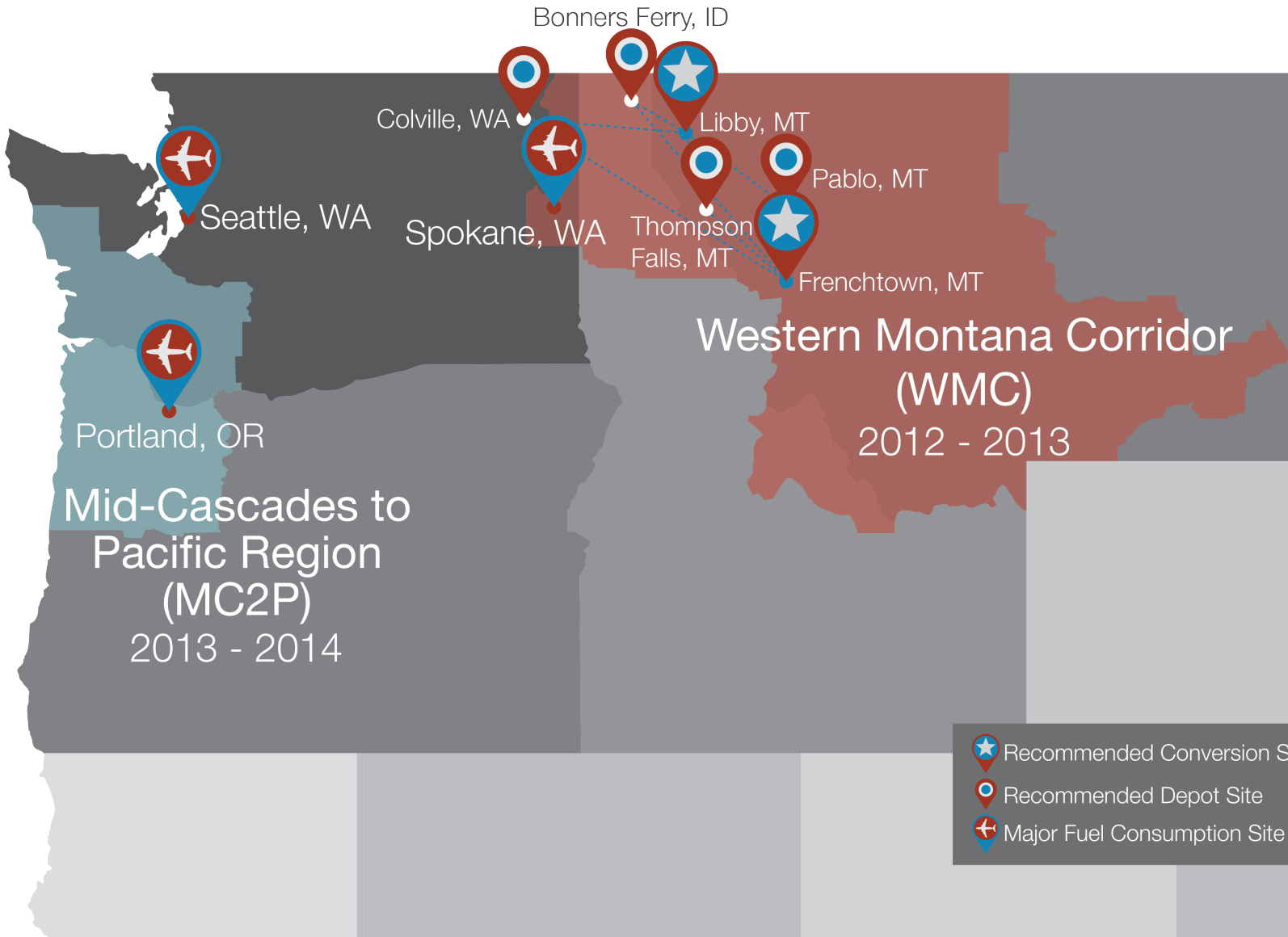
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# Supply Chain Regions

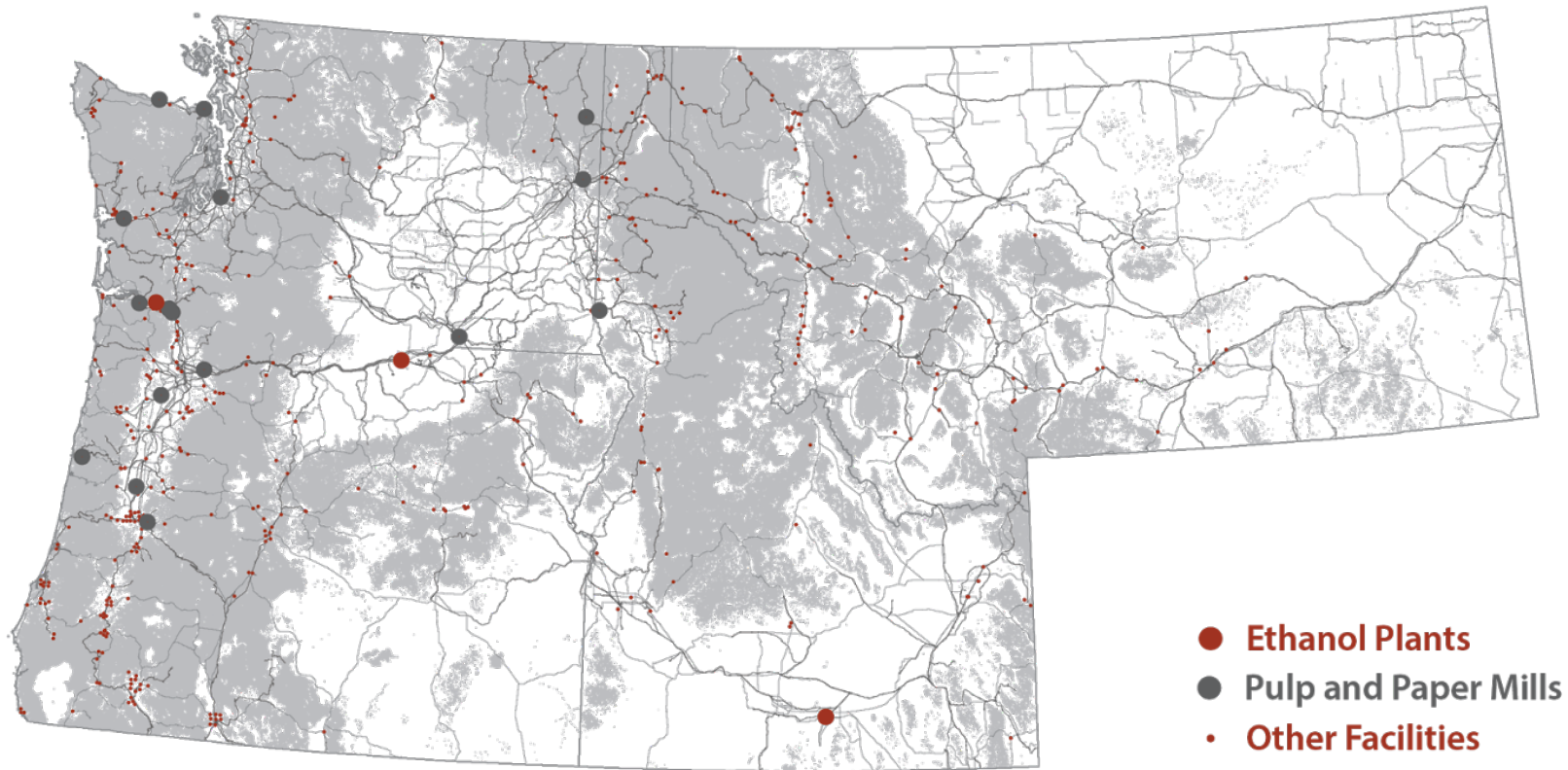
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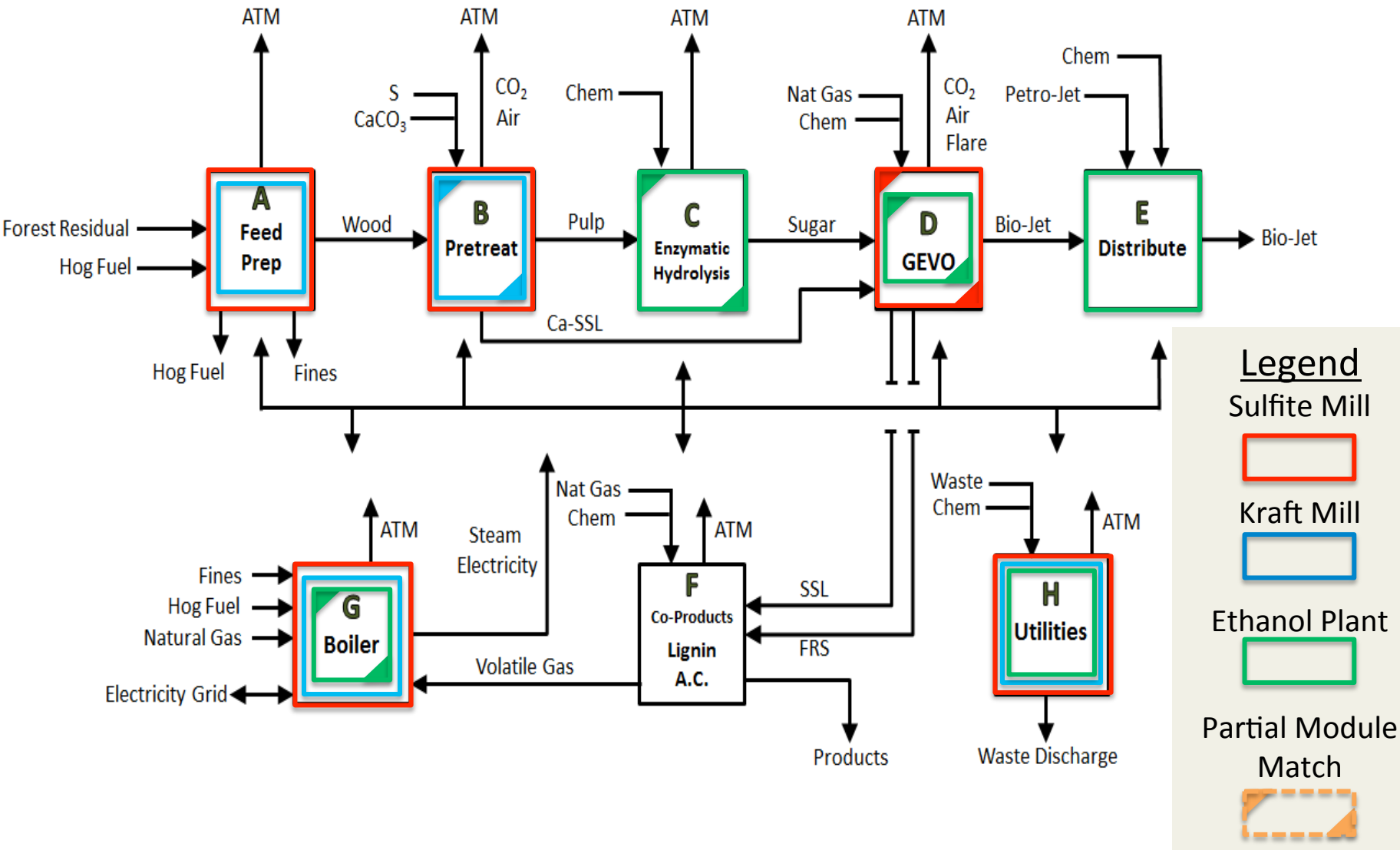
- Recommended Conversion Site
- Recommended Depot Site
- Major Fuel Consumption Site

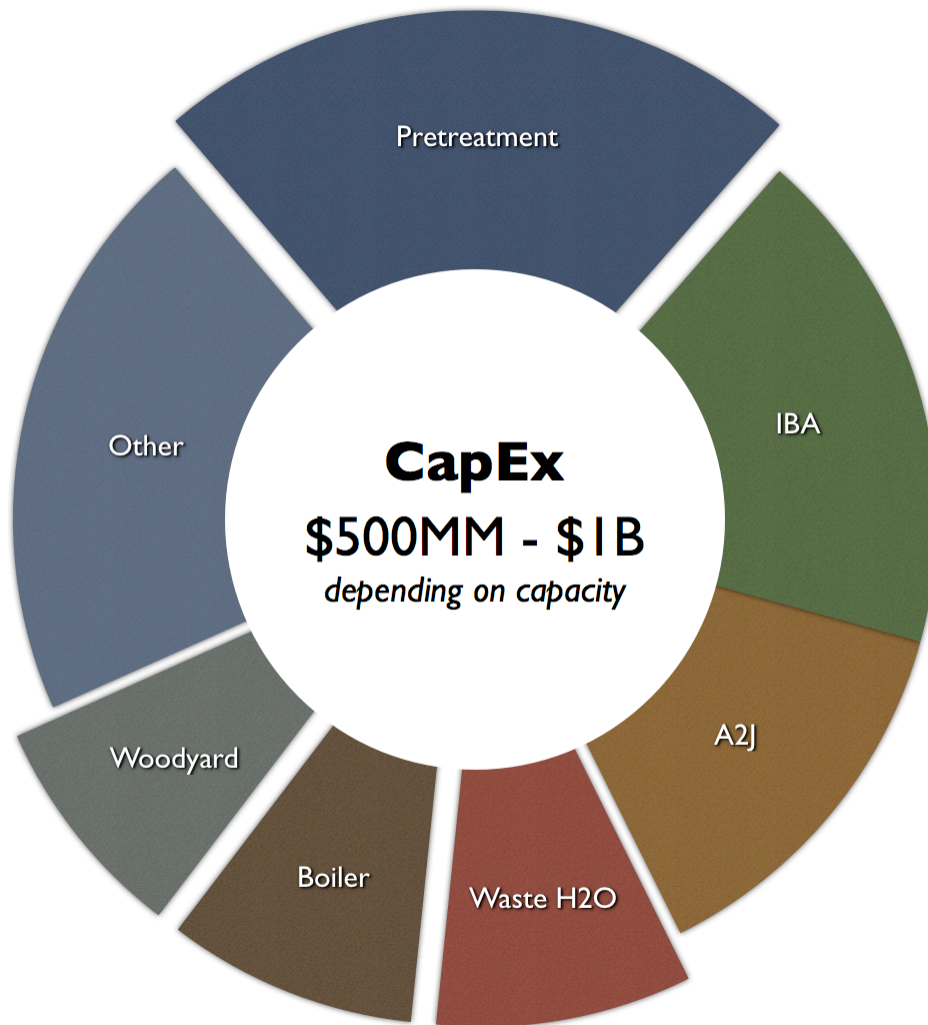
# Facility Assets: Pulp, Paper, and Ethanol

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# Facility Comparisons to NARA IBR





## **Retrofit Option**

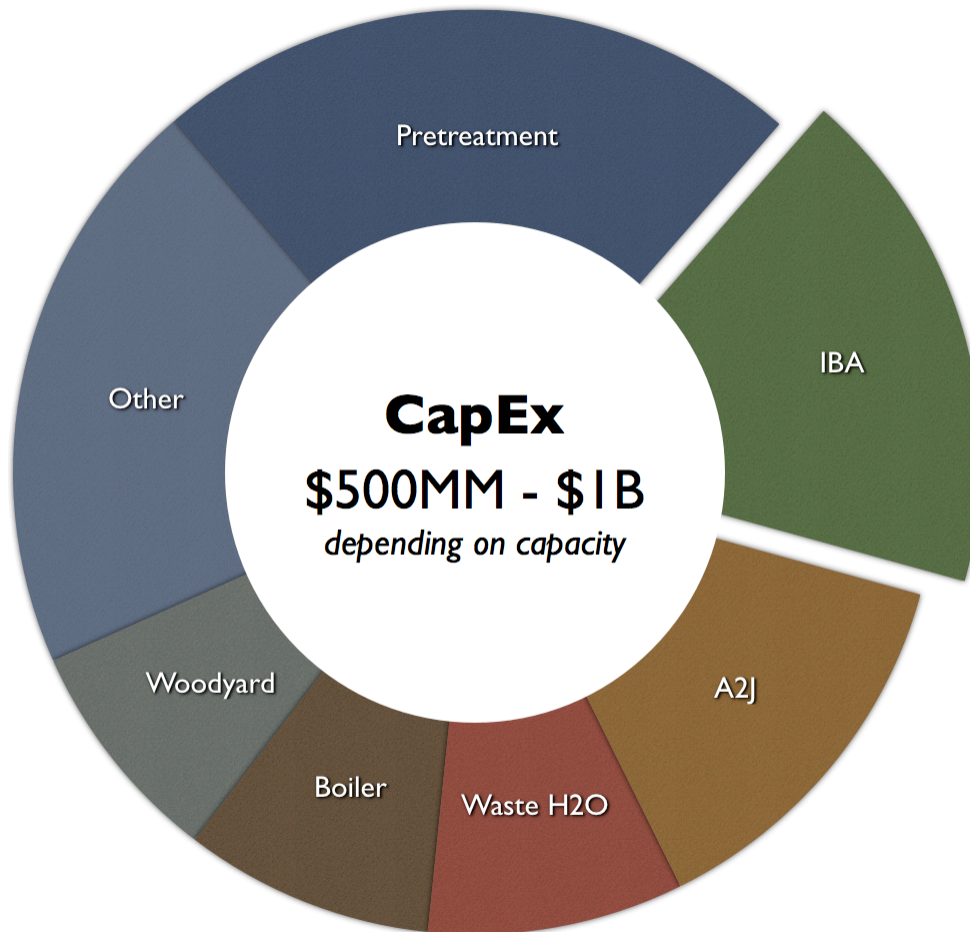
Existing Pulp Mill

## **Potential Benefits**

- Digester
- Woodyard
- Boiler
- Wastewater

## **Considerations**

- Type (sulfite, ctmp, kraft)
- Metallurgy
- Energy Balance



## **Retrofit Option**

Ethanol Plant

## **Potential Benefits**

- Hydrolysis
- Fermentation
- Tank Farms
- Distribution

## **Considerations**

- Sugar Compatibility
- Sterility
- Energy Balance



# Regional Supply Chain Analyses



## Pacific Northwest (PNW)

### [Supply Chain Analysis](#)

This site provides supply chain data and analysis generated by NARA research for the region identified as the Pacific Northwest, which includes Montana, Idaho, Washington, and Oregon.



## Mid-Cascades to Pacific (MC2P)

### [Supply Chain Analysis](#)

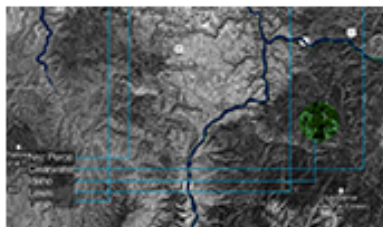
This site provides supply chain data and analysis generated by NARA research for the region identified as Mid-Cascades to Pacific, which includes the western sections of Washington and Oregon.



## Western Montana Corridor (WMC)

### [Supply Chain Analysis](#)

This site provides supply chain data and analysis generated by NARA research for the region identified as the Western Montana Corridor, which includes the western section of Montana, Northern Idaho and northeast Washington.



## Clearwater Basin

### [Supply Chain Analysis](#)

This site provides supply chain data and analysis generated by NARA research for the region identified as the Clearwater Basin, located in central Idaho.



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# MID-CASCADE TO PACIFIC CORRIDOR

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Volume II | ANALYSIS



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# THANK YOU

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