



# Massachusetts Water Resources Authority

*Presentation to*

**WSCAC**

## *Background on MWRA Drought Response Planning*

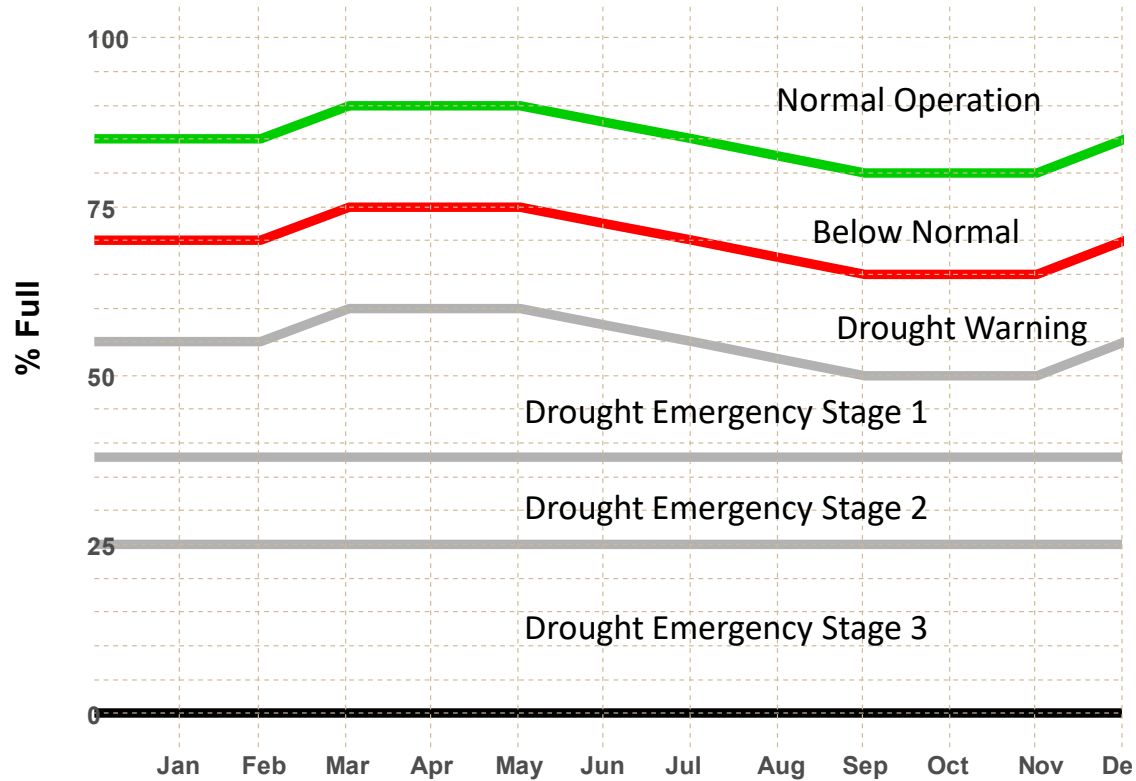


February 14, 2023





# MWRA's 1989 Drought Management Plan Triggers



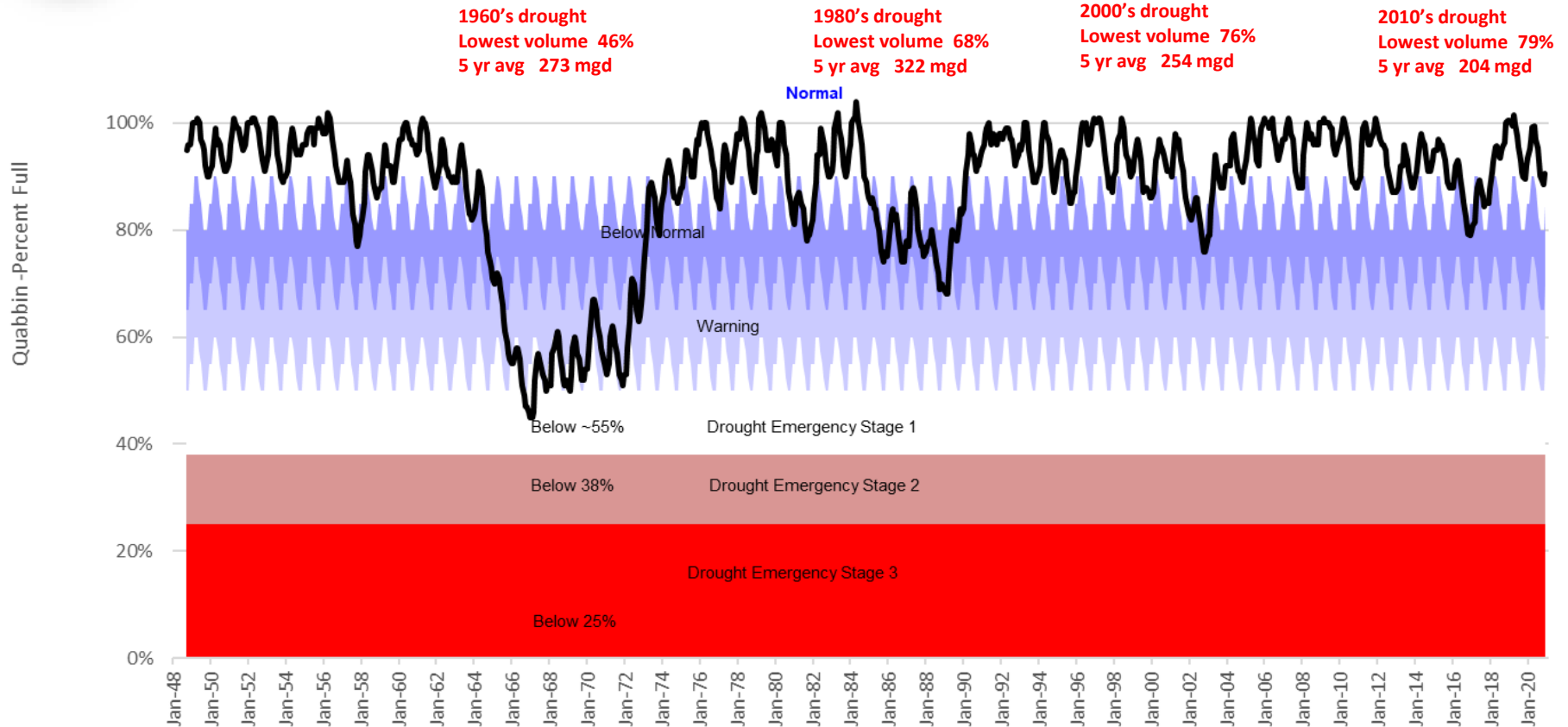


# 1989 Drought Plan Demand Reduction Targets

Stage	Trigger Range Quabbin Reservoir	Target Water Use Reduction
Normal Operation	80-100%	Regular Conservation, Coordinated w State
Below Normal	65-75%	More Aggressive Conservation Messages
Drought Warning	50-60%	5% (mostly voluntary)
Drought Emergency Stage 1	38-60%	10%
Drought Emergency Stage 2	25-38%	15%
Drought Emergency Stage 3	Below 25%	30%

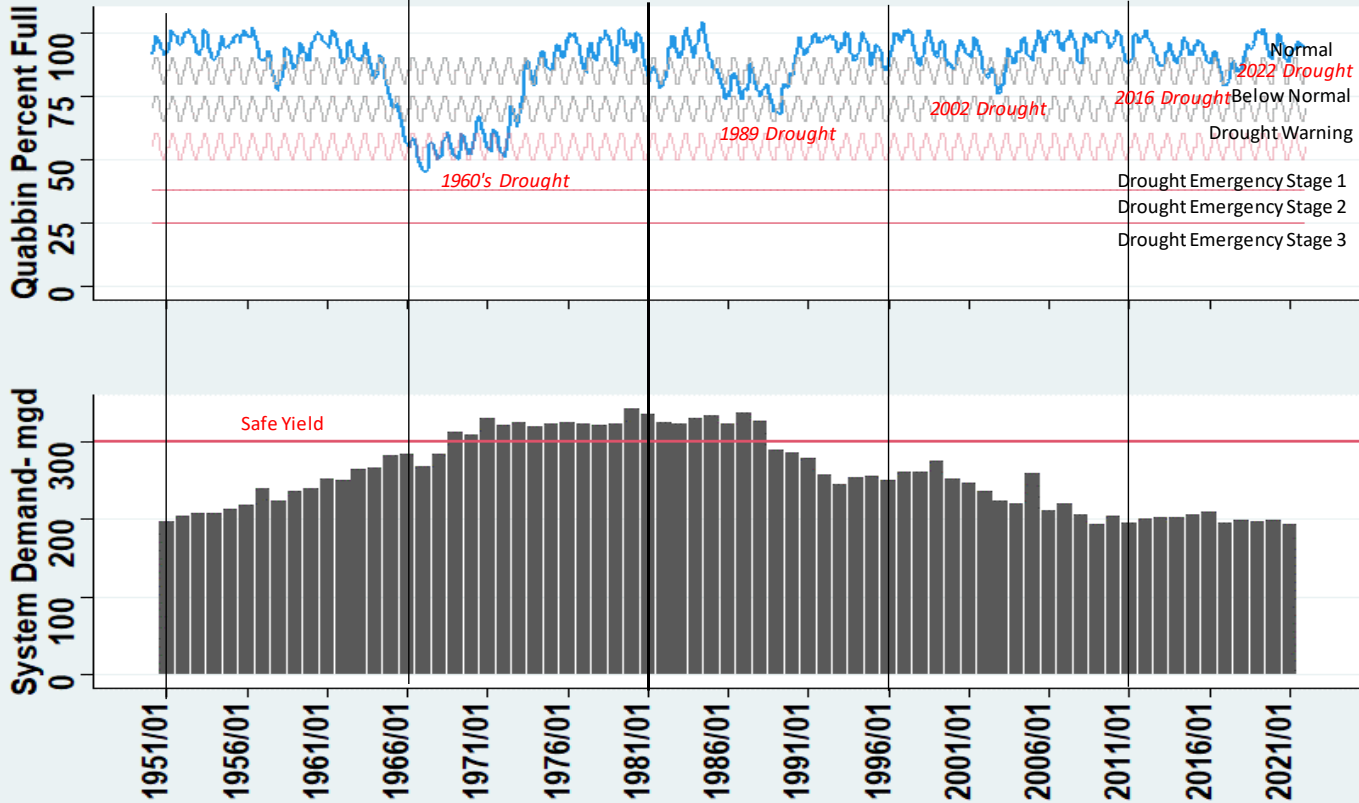


# Actual Quabbin Water Levels With Drought Planning Stages



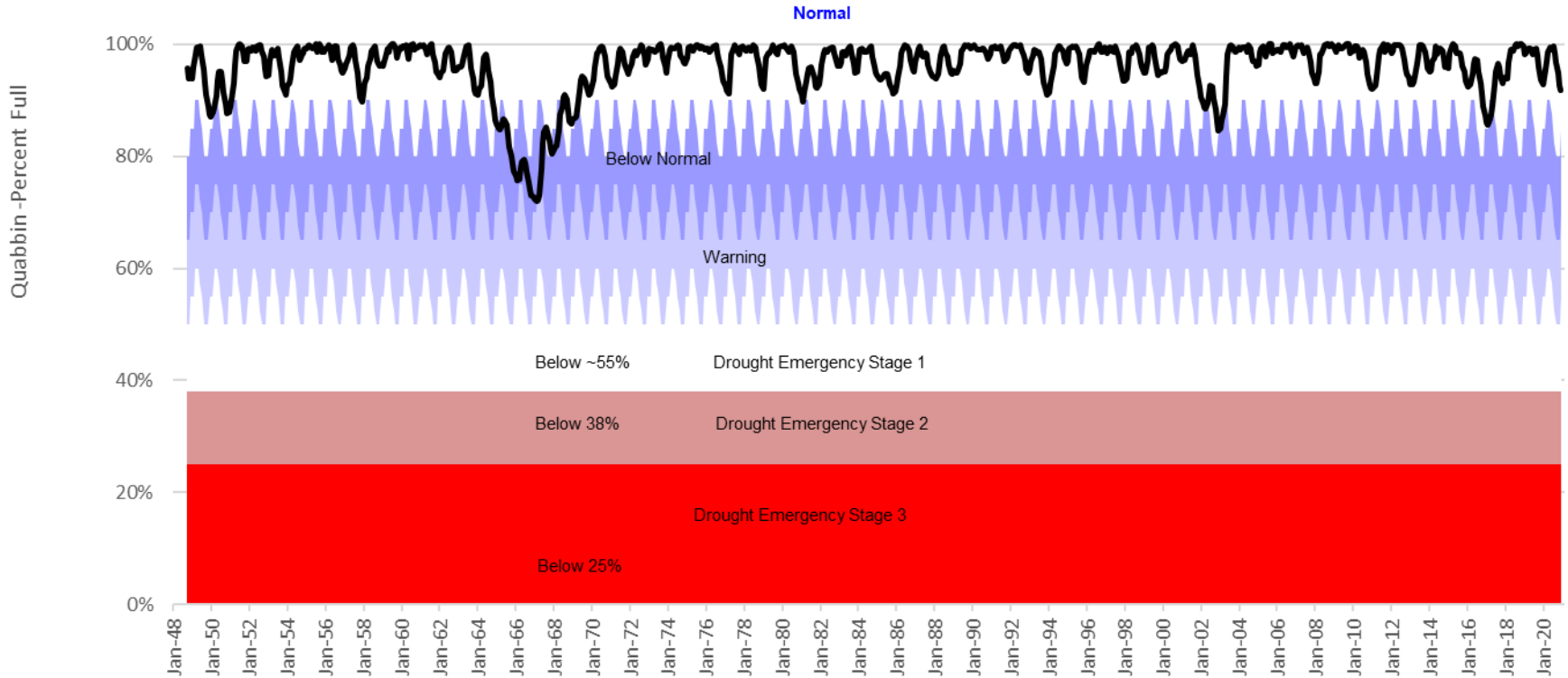


# Quabbin Historical Droughts



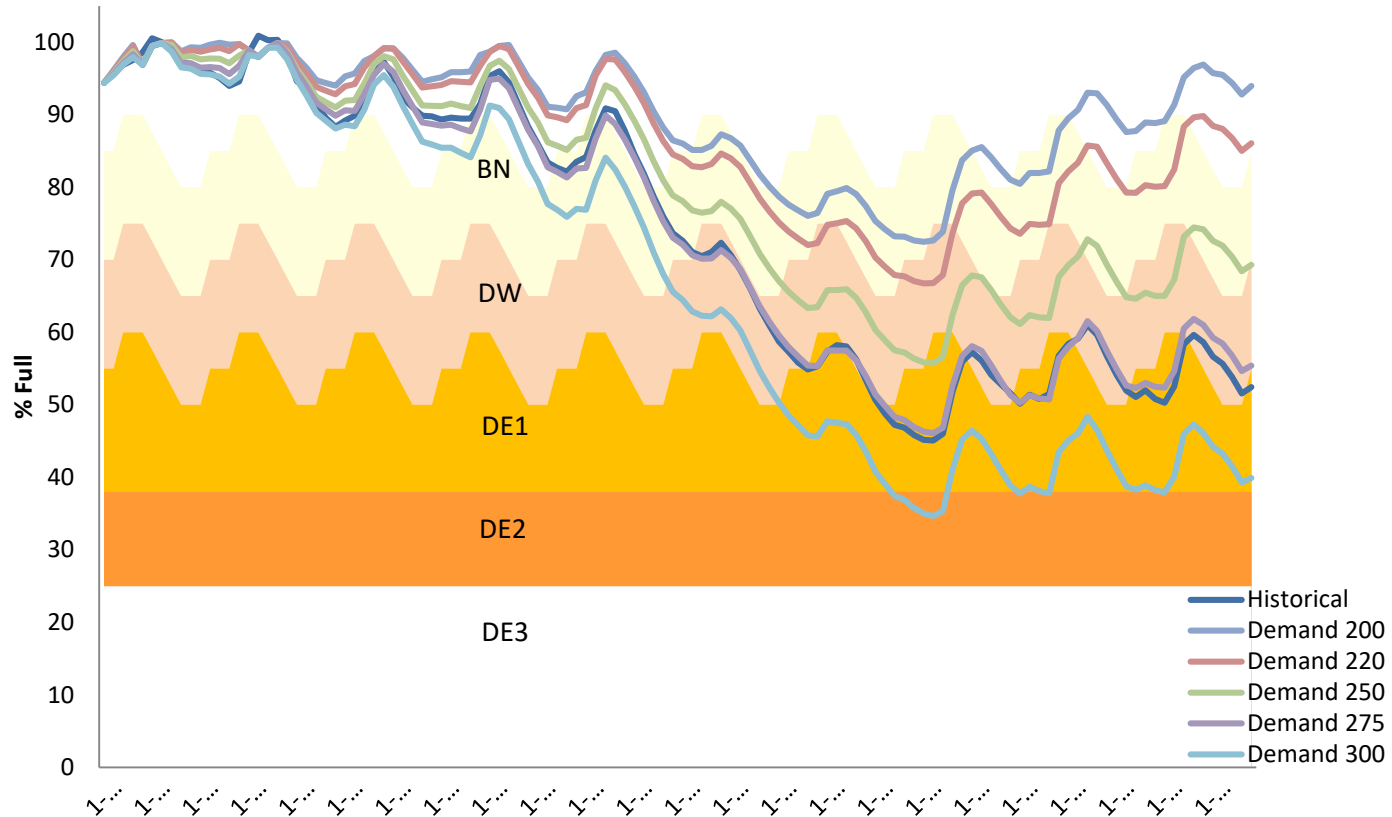


# Modeled Quabbin Levels At A Demand of 200 mgd



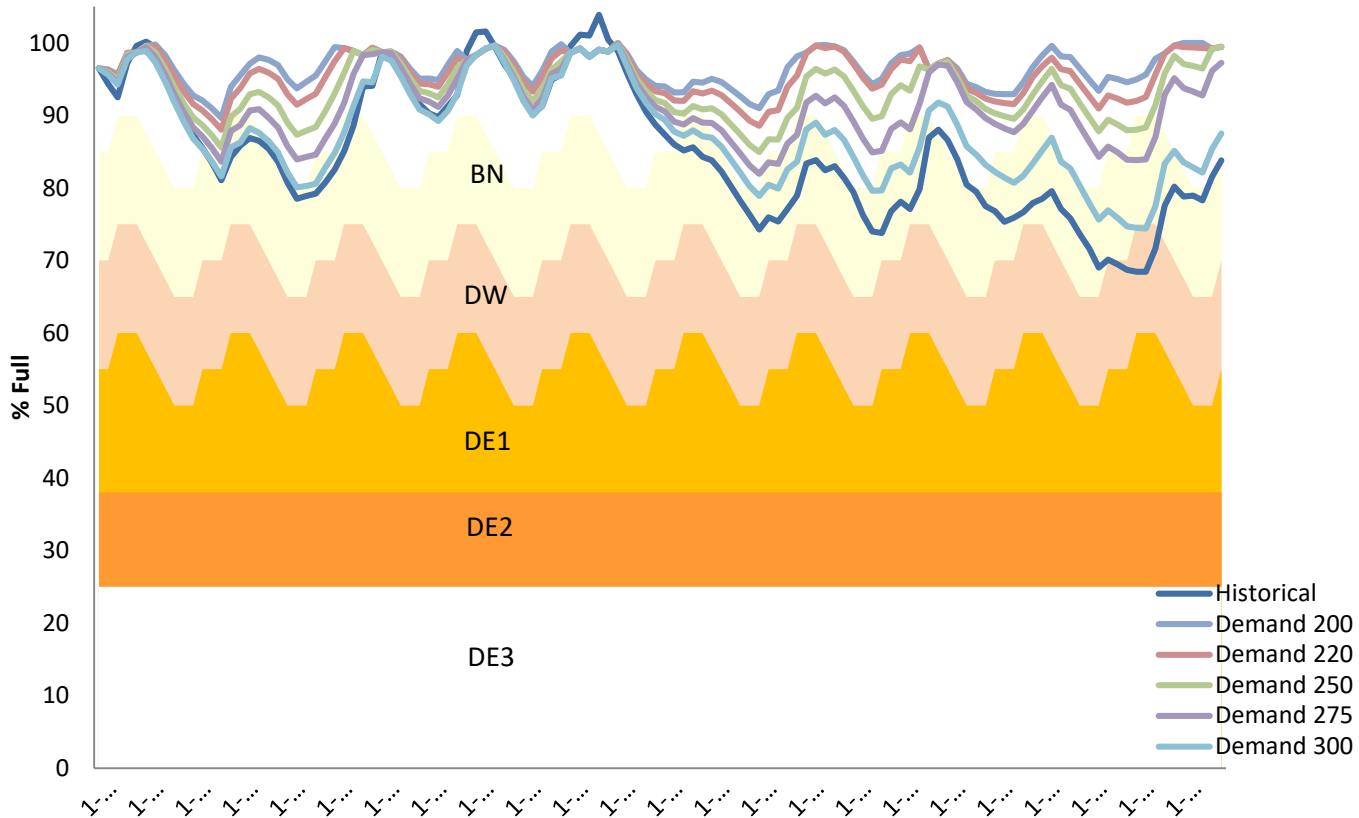


# 1960's Drought w/ Predicted Performance





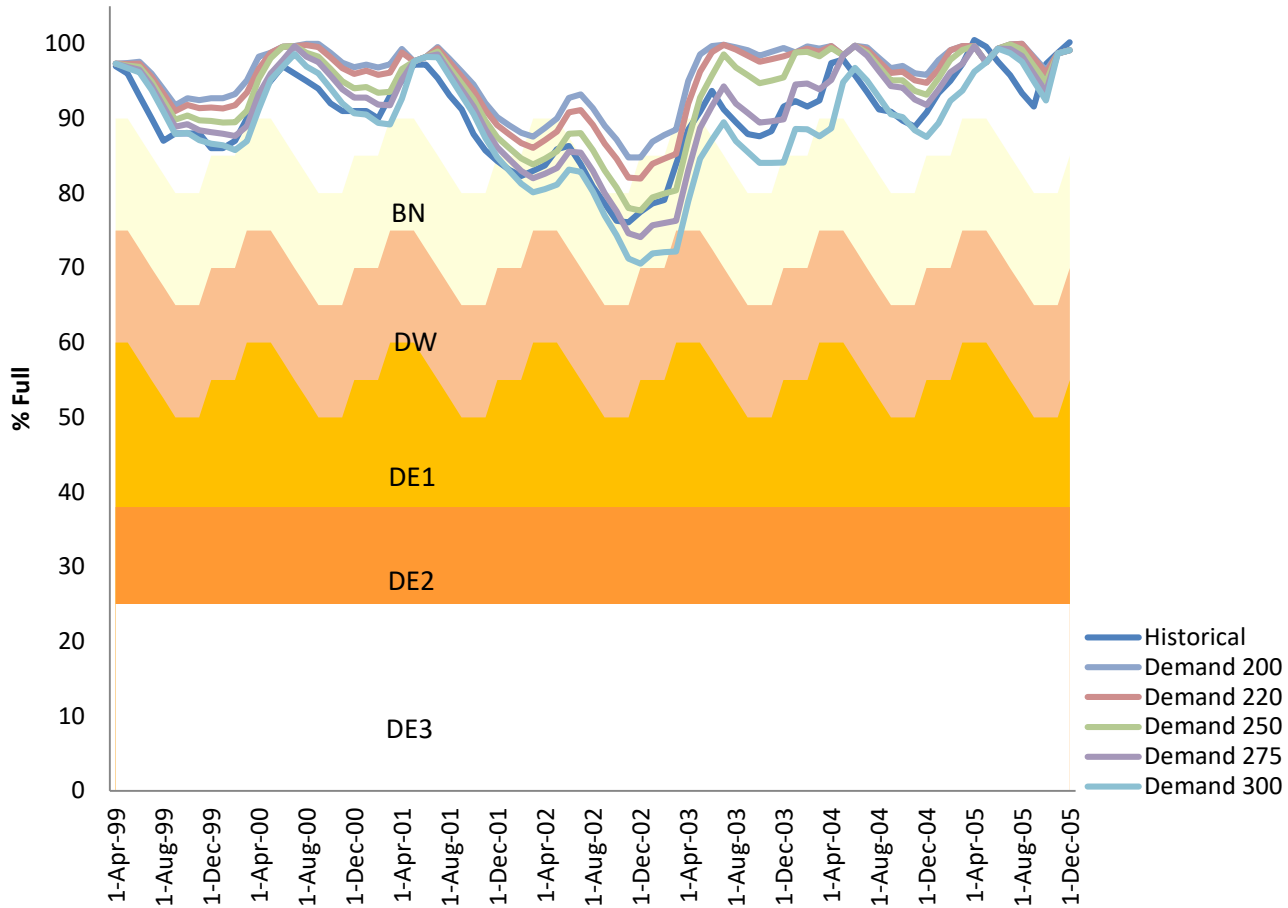
# 1980's Drought with Predicted Performance







# 2000's Drought with Predicted Performance





# 2010's Drought with Predicted Performance

