

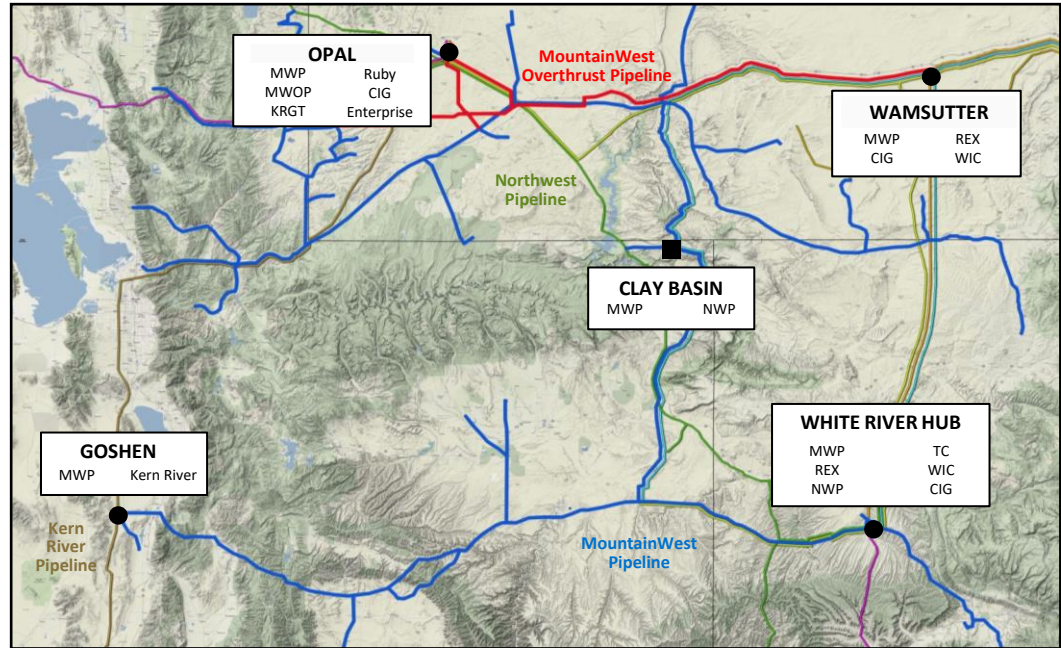
Storage 101

A Summary of MountainWest Pipeline Storage Assets



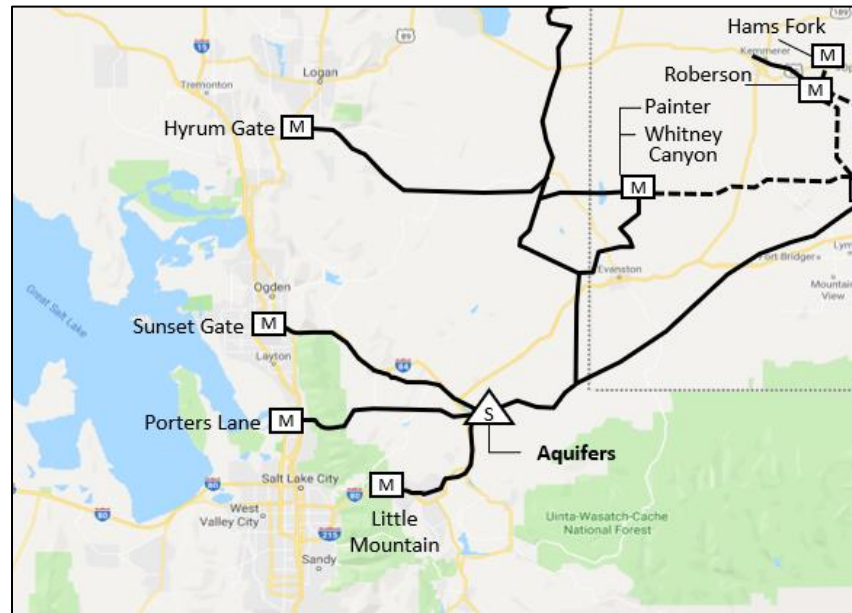
Clay Basin Storage

Information	Description
Storage Capacity (BCF)	60.4 MMDth working gas 66.21 Bcf cushion gas
Interconnect Capacity (Dth/d)	MountainWest Pipeline (MWP) - Injection: 217,000 - Withdrawal: 700,000 Northwest Pipeline - Injection: 250,000 - Withdrawal: 320,000 * Numbers listed are meter sizing, and actual volumes depend on pipeline conditions
Location	- Daggett County, Utah - NE corner of Utah near Wyoming and Colorado borders



Aquifer Storage

	Description
Location	MAP 98 – AQUIFER STORAGE WD
Formation/ Reservoir	Kelvin, Longwall, and Thaynes
Total Wells	27
Horsepower	5980 HP
Working Gas Capacity	1928 MDth



Clay Basin Storage

Facilities:

- 89,000 feet of 6 and 10 inch field lines
- 29 field dehydration units
- 44 injection and withdrawal wells

Compressors:

- Five 2,600 HP reciprocating compressors
- Three 6,500 HP turbine compressors
- One 1,680 HP compressor (Park & Loan)

Services Opportunities:

- Firm Storage
- Interruptible Storage
- Capacity Release
- Release of Injection/Withdrawal Rights
- In-place Transfers
- Park and Loan Service

Clay Basin Storage: Injection

- The injection season starts May 1 and ends October 31
- During the start of the injection season, the average injection volume is 300 MMcf
- Per Part 3, Section 10.5(a) of the tariff, MWP will allow physical withdrawals or withdrawals by displacement during injection season when operationally feasible
- Formula for injection allocation:
 - $\text{Injection Allocation} = (X/Y) * Z$
 - X= Firm Shipper's annual working gas
 - Y = Sum of the annual working gas of all firm shippers
 - Z = Available injection capacity on any day



Clay Basin Storage: Withdrawal

- The withdrawal season starts November 1 and ends March 31 of the succeeding year
- During the start of the withdrawal season, the average withdrawal volume is 500 MMcf
- Per Part 3, Section 10.5(a) of the tariff, MWP will allow physical injections or injections by displacement during withdrawal season when operationally feasible
- The actual withdrawal rate varies with the working gas volume
 - Withdrawal Allocation = $[(A/B) * (C-D)] + E$
 - A = Firm Shipper's working gas remaining in storage
 - B = Total working gas remaining in storage for all shippers
 - C = Maximum possible reservoir deliverability
 - D = Sum of firm shipper's minimum required deliverability
 - E = Firm shipper's minimum required deliverability

Clay Basin Storage: Firm Storage Rates

- Firm Storage Service (Rate Schedule FSS):
 - Reservation (Maximum)
 - Monthly Deliverability: \$2.85338
 - Monthly Capacity: \$0.02378
 - Usage Charges (Maximum)
 - Injection: \$0.01049
 - Withdrawal: \$0.01781
- Fuel is reimbursed in kind and calculated using Utility and Compressor/Dehydration calculations (refer to MWP FERC Gas Tariff)
- Clay Basin Conditioning Reimbursement Factor (refer to MWP FERC Gas Tariff & Appendix)
- Shippers arrange separately for transportation services to/from Clay Basin

Clay Basin Storage: Estimator Tool

- Available online: Informational Postings > Other > Clay Basin Estimator
- Excel download available to edit offline

Clay Basin Injection Withdrawal Estimator - MountainWest Pipeline

Injection and Withdrawal allocation estimates for Gas Day

FSS Shipper's annual working gas in (Dth)

Firm Shipper's working gas remaining in storage (Dth)

MRD Dth/day

Injection Allocation Dth/day

Withdrawal Allocation Dth/day

*All quantities represented in Dekatherm (Dth)

DISCLAIMER: Worksheet and calculations to be used solely for the purpose of estimating firm injection and withdrawal allocation capacities. Please contact MountainWest Pipeline Marketing and Scheduling for help.

Injection Allocation Estimator

FSS Shipper's annual working gas	1,000,000	X
Sum of Clay Basin Annual Working Gas volumes	55,752,750	Y
Today's available injection capacity	175,000	Z
Firm Injection Allocation	3,139	(X / Y) * Z

Withdrawal Allocation Estimator

Worksheet Notes:

The values in **light blue** can be changed to estimate a new calculation.

(Y) excludes MountainWest Pipeline's firm balancing account working gas volumes.

(Z) Injection capacity can range anywhere from 100,000 Dth/day to 325,000 Dth/day May to Oct for Clay Basin.

(C) Maximum possible deliverability can range anywhere from 175,000 dth/day to 750,000 dth/day Oct-Mar for Clay Basin.

MRD (Minimum Required Deliverability), as defined in the tariff, is equal to : The minimum withdrawal rate or quantity of gas that firm

Clay Basin Storage: Interruptible Rates

- Interruptible Storage Service (Rate Schedule ISS)
 - Usage Charge: (Maximum)
 - Inventory: \$0.05927

Applied to the average monthly working gas balance

 - Injection: \$0.01049
 - Withdrawal: \$0.01781
- Fuel is reimbursed in-kind and calculated using Utility and Compressor/Dehydration calculations (refer to MWP FERC Gas Tariff)
- Clay Basin Conditioning Reimbursement Factor (refer to MWP FERC Gas Tariff & Appendix)
- Shippers arrange separately for transportation services to/from Clay Basin

Stipulation Agreement Information

Background

Liquids Revenue & Conditioning:

For each 12 month period ending April 30th, DEQP retains all revenues from the sale of liquids obtained in the conditioning process up to the cost of service amount listed in the tariff. Revenue received from the sale of liquids is posted monthly on MWP's website.

When Liquid Revenue is forecast to be below the required annual cost of service amount, MWP collects a Conditioning Reimbursement Factor:

MWP calculates and posts the factor by March 31st of each year.

The Conditioning Reimbursement Factor is a percentage of injections and withdrawals that is collected monthly as part of fuel. The gas is valued at the first of the month index and is posted monthly on MWP's website.

Information Cost of Service

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ARA

Annual Reimbursement Adjustment:

For the 12 month period ending April 30th of each year, the revenue selling liquids obtained in the gas conditioning process is added to the value of the gas collected from the Conditioning Reimbursement Factor to determine total revenue collected under the stipulation.

Any excess revenue is returned to customers and any shortage is obtained from customers in July of each year.

The reconciliation is normally done in the form of a gas transferred to or from the customers. The gas is valued at the July 1st index for that year. The customer and MWP can negotiate a settlement payment by one party to the other in lieu of a transfer in kind.

For additional information, refer to Section 16 of MWP Tariff