ASO Hydrologic Forecast Report

Uinta Mountains: Strawberry/Duchesne

Forecast Date: May 28, 2026

Airborne Snow Observatories, Inc. is a public benefit corporation with a mission to provide high-quality, timely, and accurate snow measurement, modeling, and runoff forecasts to empower the world's water managers to make the best possible use of our planet's precious water.

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Overview:

This report summarizes WRF-Hydro hydrologic analysis and forecast results for the Uinta Mountains: Strawberry/Duchesne River Basin for forecasts generated on May 28, 2026. No new airborne surveys have occurred since the prior forecast and report. Hydrologic variables reported on in this report include snowpack, snowmelt, seasonal river flow/reservoir inflow, and soil moisture.

IMPORTANT: All modeled runoff and reservoir inflow forecasts are "natural" flow values with no accounting for reservoir storage/release, diversions, transfers or managed return flows. As such, these forecast numbers should be compared against analogous naturalized flow measurements or estimates.

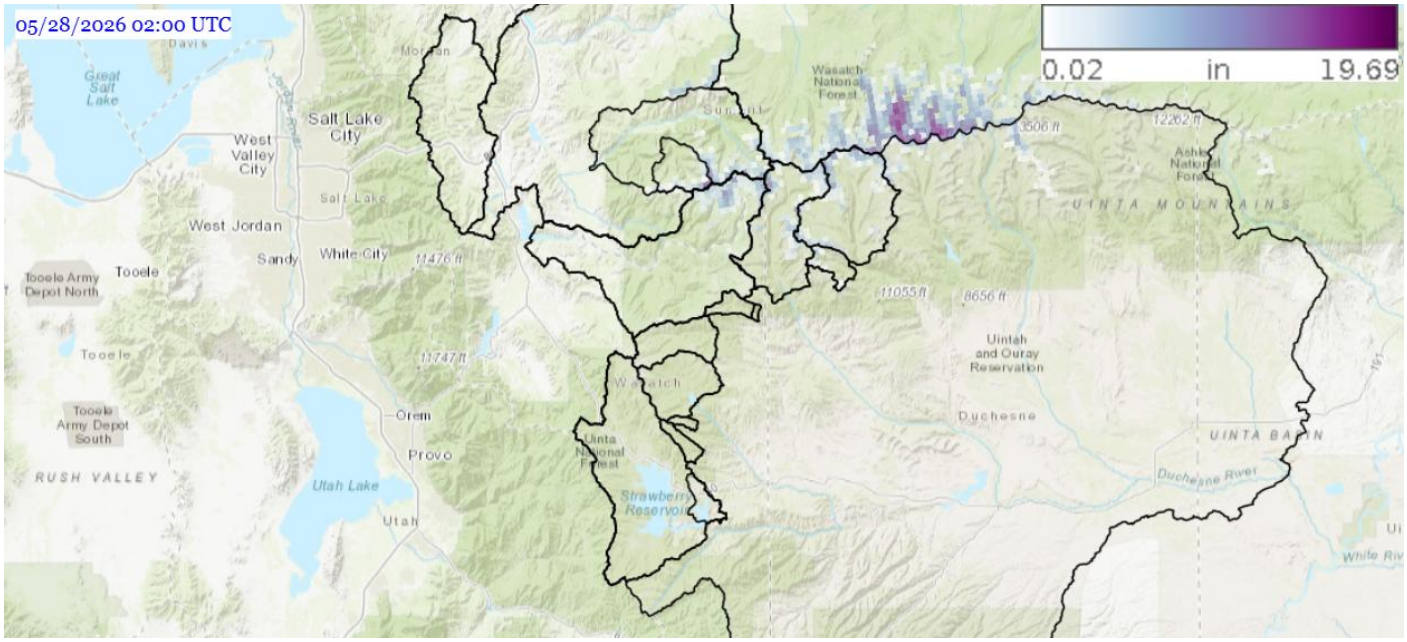

Figure 1. WRF-Hydro/ASO-assimilated 1km gridded Snow Water Equivalent (SWE - inches). Valid: May 28, 2026

Snowpack Status: Impact of ASO Airborne Surveys

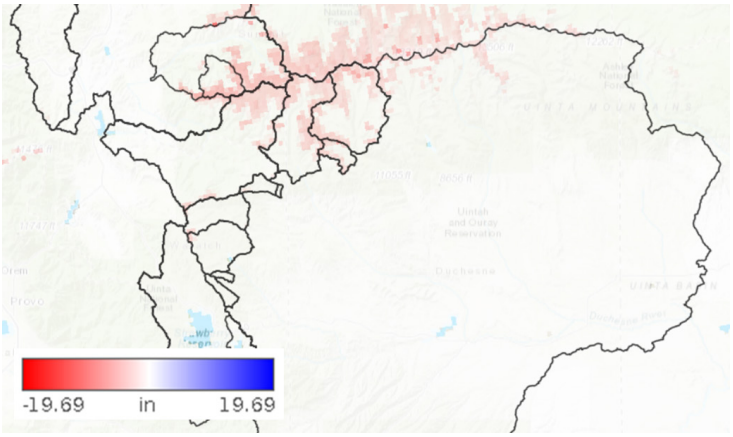

Figure 2. Spatial map of SWE difference between WRF-Hydro ASO-assimilated values (inches) since the prior forecast on May 16. Blue(red) values indicate increases(decreases). Valid: May 28, 2026

Table 1. Valid: May 28, 2026

Basin	Estimated SWE volume (kac-ft)
SNODAS	2.915
ASO-assimilated	14.729

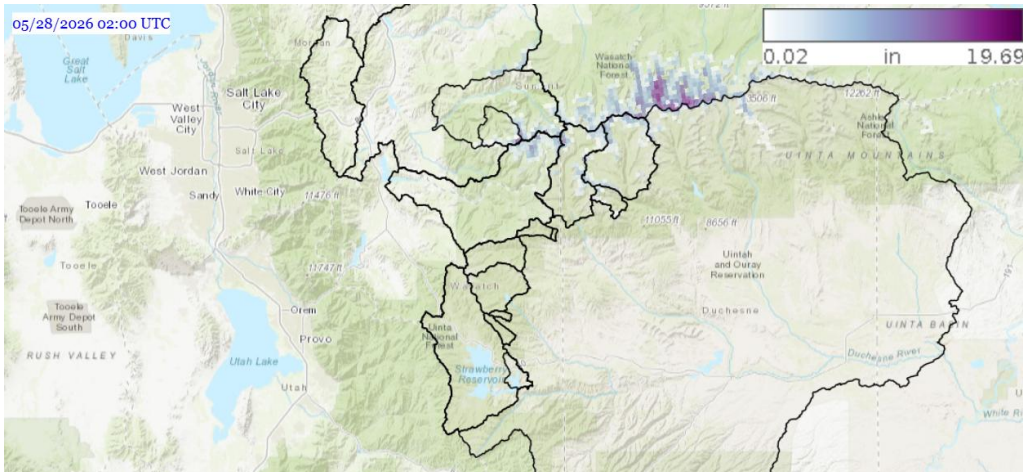

Figure 3. ASO-assimilated WRF-Hydro SWE. (inches) Valid: May 28, 2026

Impact of ASO Survey Assimilation:

Snowpack steadily decreased over the region since the prior forecast. (Fig. 2) As of May 28 only around 14.7 TAF of SWE remained throughout the entire Duschesne River basin area.

Snowpack Status: Snowpack Volume

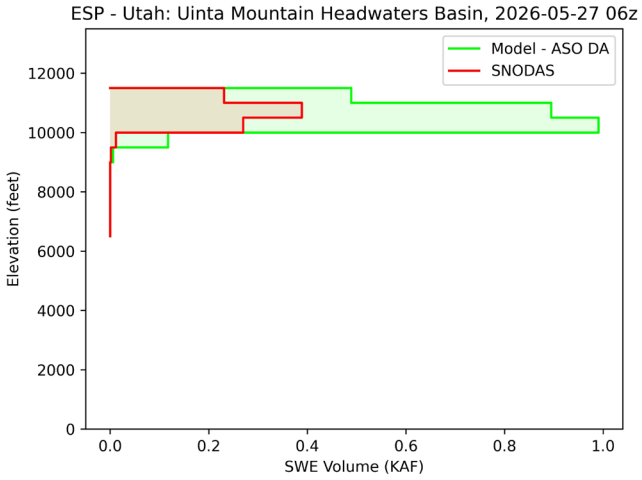

Figure 4. Elevation distribution of SWE between WRF-Hydro ASO-assimilated model and SNODAS (kac-ft). Valid: May 27, 2026

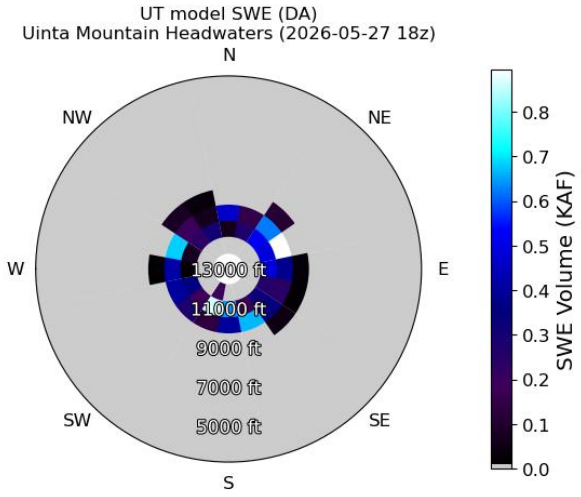

Figure 5. Terrain aspect-elevation distribution of snowpack (kac-ft) Valid: May 27, 2026

Summary of Snowpack Conditions:

The figures on this page show various distributions of snowpack within the basin. The elevation distribution of SWE in Fig. 4 shows that the ASO-assimilated WRF-Hydro model continued to estimate more snowpack than operational SNODAS estimate product across most elevation bands. Figure 5 shows that the ASO-assimilated snowpack that remains in the basin is generally distributed broadly across several aspects at high elevations. The seasonal trend of basin-integrated snowpack shown in Fig. 6 shows the broad decline in SWE with little amounts remaining.

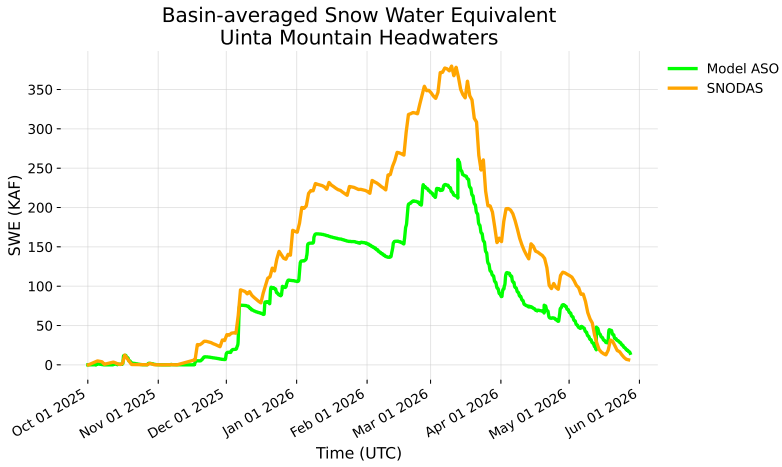

Figure 6. Basin-avg SWE from WRF-Hydro ASO-assimilated model and SNODAS (kac-ft). Valid: May 28, 2026

Table 2. Valid: May 28, 2026

Strawberry Reservoir - SWE

Basin	Estimated SWE volume (kac-ft)
SNODAS	None
ASO-assimilated	None

Provo R. above Jordanelle Res. - SWE

Basin	Estimated SWE volume (kac-ft)
SNODAS	0.038
ASO-assimilated	4.607

Rock Cr. above Stillwater - SWE

Basin	Estimated SWE volume (kac-ft)
SNODAS	2.369
ASO-assimilated	5.331

Snowpack Forecast:

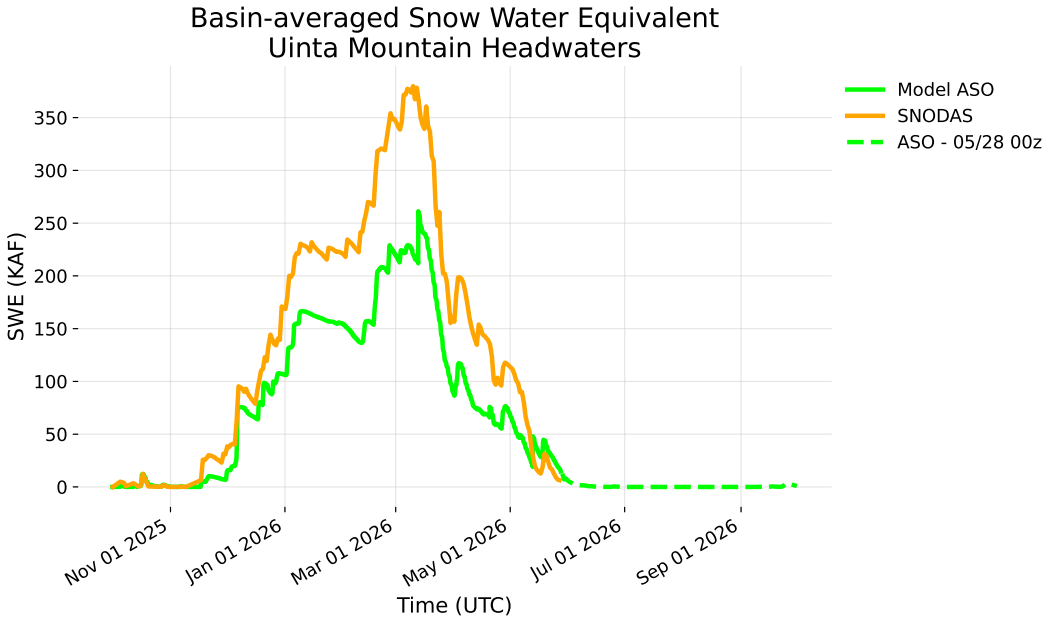

Figure 7. WRF-Hydro model analyzed and ensemble mean forecasted SWE. Valid: May 28, 2026

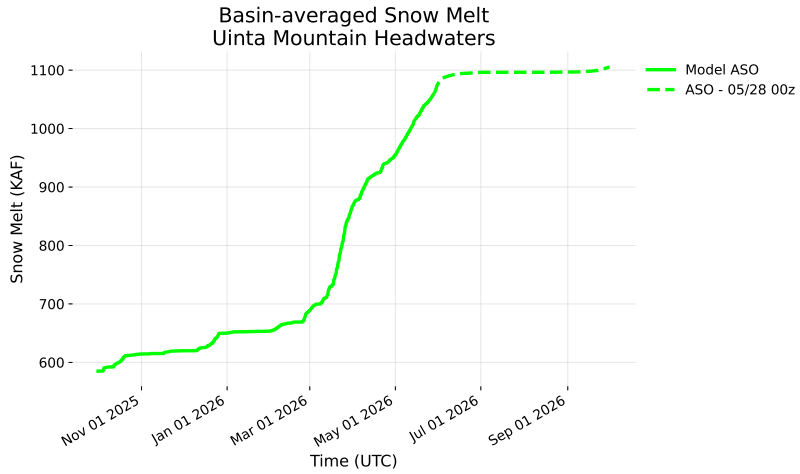

Figure 8. WRF-Hydro model forecasted basin-integrated ensemble mean accumulated snow-melt (inches) from the ASO-assimilated model instance. Valid: May 28, 2026

Summary of Snowpack Forecasts

The snowpack forecasts for the ASO-assimilated model (dashed green line) continued to show that snowpack will be essentially gone within the next 1-2 weeks. (Fig. 7) The forecasted SWE and snowmelt (Fig. 8) also shows that snowmelt fluxes are largely completed for the season. Future precipitation may add minor additional inputs to that expected amount of snowmelt though any appreciable new snowpack accumulations are not currently expected.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Strawberry Reservoir Inflow

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	22.3	22.9	24.7	28.4	31.0

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	23.42	23.67	24.05	25.05	25.57

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	23.2	24.0	24.7	26.0	27.2

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	20.40	20.77	21.05	22.18	22.80

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	17.66	17.69	18.12	18.72	19.50

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from the CBRFC.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Water Hollow abv Diversion Dam

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	0.55	0.57	0.60	0.70	0.81

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	0.55	0.56	0.57	0.59	0.62

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	0.60	0.61	0.61	0.63	0.65

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	0.613	0.614	0.618	0.626	0.635

Forecast Date	Q90	Q75	Q50	Q25	Q10
26-May-26	0.629	0.630	0.631	0.638	0.649

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from model analysis. No naturalized streamflow estimate available in real-time.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Layout Cr abv Diversion Dam

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	0.25	0.26	0.28	0.33	0.39

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	0.29	0.30	0.30	0.31	0.33

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	0.26	0.27	0.27	0.28	0.29

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	0.282	0.282	0.283	0.289	0.293

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	0.281	0.282	0.282	0.287	0.294

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from model analysis. No naturalized streamflow estimate available in real-time.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Currant Creek abv Dam

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	2.18	2.82	3.82	5.47	7.32

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	2.41	2.68	3.27	4.20	5.34

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	2.35	2.56	2.89	3.66	4.61

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	2.56	2.67	2.88	3.38	3.93

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	2.19	2.23	2.30	2.74	3.19

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from the CBRFC.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

West Fork abv Diversion Dam

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	4.66	5.32	6.44	8.92	10.55

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	6.30	6.51	6.88	7.78	8.60

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	5.65	5.91	6.18	7.21	7.88

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	6.29	6.33	6.43	6.74	7.22

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	6.21	6.23	6.27	6.53	6.65

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from the CBRFC.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Wolf Cr. abv Diversion Dam

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	0.80	0.89	1.10	1.38	1.55

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	1.07	1.15	1.19	1.31	1.37

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	0.98	1.03	1.10	1.22	1.28

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	1.10	1.10	1.13	1.15	1.23

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	1.06	1.07	1.08	1.14	1.15

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from model analysis. No naturalized streamflow estimate available in real-time.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Twin Cr. abv Diversion Dam

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	0.13	0.16	0.20	0.24	0.28

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	0.15	0.16	0.18	0.20	0.23

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	0.16	0.17	0.19	0.21	0.23

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	0.169	0.171	0.179	0.188	0.206

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	0.192	0.194	0.197	0.212	0.220

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from model analysis. No naturalized streamflow estimate available in real-time.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Hades Cr.

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	2.48	3.17	4.67	6.28	7.18

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	3.25	3.52	4.35	5.26	5.94

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	3.43	3.60	4.01	4.71	5.08

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	4.02	4.11	4.25	4.61	4.96

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	4.290	4.311	4.348	4.562	4.826

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from model analysis. No naturalized streamflow estimate available in real-time.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

S. Fork Rock Cr. abv Diversion

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	4.77	5.43	7.72	10.46	11.46

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	6.75	7.04	7.74	8.46	9.12

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	5.95	6.15	6.83	7.61	8.17

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	5.34	5.49	5.67	6.33	6.69

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	5.25	5.28	5.31	5.71	6.21

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from the CBRFC.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Rock Cr. abv Stillwater Diversion

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	25.1	29.8	47.5	68.2	76.9

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	37.34	39.40	44.44	49.26	54.75

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	35.7	37.6	41.8	47.9	52.4

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	39.59	40.44	42.21	45.97	50.95

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	45.17	45.44	45.85	49.17	52.08

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from the CBRFC.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Lake Fork abv Moon Lake

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	21.4	26.5	37.9	53.9	61.6

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	32.39	34.72	39.38	43.83	47.30

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	37.1	39.2	42.8	46.8	50.0

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	33.0	33.7	35.6	37.7	40.5

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	33.01	33.03	33.46	34.07	34.83

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from the CBRFC.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Yellowstone R abv Altonah

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	20.5	25.7	30.6	38.1	43.6

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	26.78	28.17	30.55	31.93	33.58

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	27.6	28.5	30.6	32.4	34.2

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	24.57	25.07	26.11	27.19	28.79

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	30.99	31.05	31.10	32.45	33.98

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from the CBRFC.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Duchesne River at Knight Diversion

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	72.5	81.1	112.9	148.5	167.0

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	90.80	95.07	104.47	115.82	125.31

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	89.1	91.7	101.4	111.6	121.0

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	96.70	98.41	100.71	109.06	117.47

Forecast Date	Q90	Q75	Q50	Q25	Q10
28-May-26	105.81	106.30	106.89	113.17	119.30

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from the CBRFC.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast					
Provo River at Woodland					
Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	41.7	48.4	66.2	86.6	104.1

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	50.85	54.46	64.53	77.06	87.31

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	52.5	54.9	58.5	63.0	67.6

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	53.3	54.4	55.5	56.6	57.7

Forecast Date	Q90	Q75	Q50	Q25	Q10
26-May-26	55.5	55.8	56.1	56.6	57.4

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included. Flow from April 1 through forecast initialization comes from USGS gauge at this site.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Provo River at Hailstone

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	46.2	53.0	70.9	91.9	109.3

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	56.5	60.1	70.3	83.0	93.1

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	56.3	58.7	62.3	67.0	71.6

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	60.7	61.9	63.0	64.1	65.1

Forecast Date	Q90	Q75	Q50	Q25	Q10
26-May-26	62.6	62.8	63.1	63.6	64.5

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included in the forecast. Flow from April 1 through forecast initialization comes from the CBRFC.

Runoff & Reservoir Inflow Forecast:

ASO-Assimilated April-July Runoff Forecast

Provo River - Jordanelle Inflow

Forecast Date	Q90	Q75	Q50	Q25	Q10
12-Mar-26	48.6	55.2	73.5	94.2	111.9

Forecast Date	Q90	Q75	Q50	Q25	Q10
6-Apr-26	57.36	61.00	71.07	83.55	93.84

Forecast Date	Q90	Q75	Q50	Q25	Q10
25-Apr-26	58.7	61.1	64.6	69.4	73.9

Forecast Date	Q90	Q75	Q50	Q25	Q10
15-May-26	63.3	64.5	65.5	66.8	67.7

Forecast Date	Q90	Q75	Q50	Q25	Q10
26-May-26	61.8	62.0	62.3	62.9	63.7

Summary of Flow Forecasts

This flow forecast represents the April-July natural accumulated runoff for this site. No accounting for human diversions, impoundments or transfers have been included in the forecast. Flow from April 1 through forecast initialization comes from the CBRFC.

Soil Saturation Status:

Summary of Soil Moisture Conditions:

Basin averaged soil moisture conditions have slightly decreased over the past couple of weeks as additional moisture inputs continued to appear to be balanced by some drying. (Fig. 10) Low elevation areas appear to remain particularly dry throughout the model domain (Figs. 9 and 11) while middle and upper-middle elevation areas exhibit comparatively higher soil saturation values.

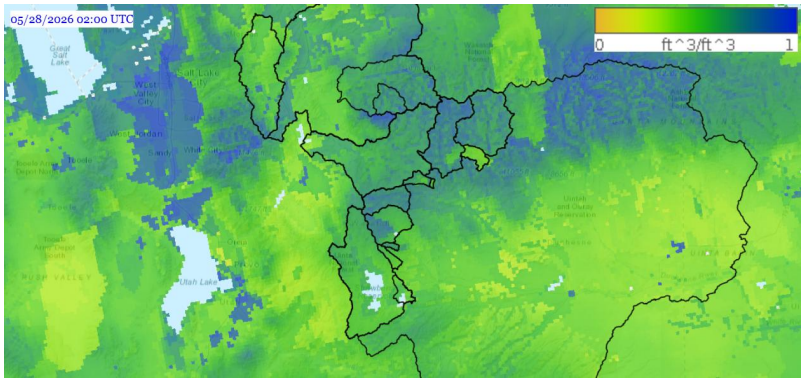

Figure 9. WRF-Hydro analyzed, vertically-integrated soil saturation. (%-saturation). Valid: May 28, 2026

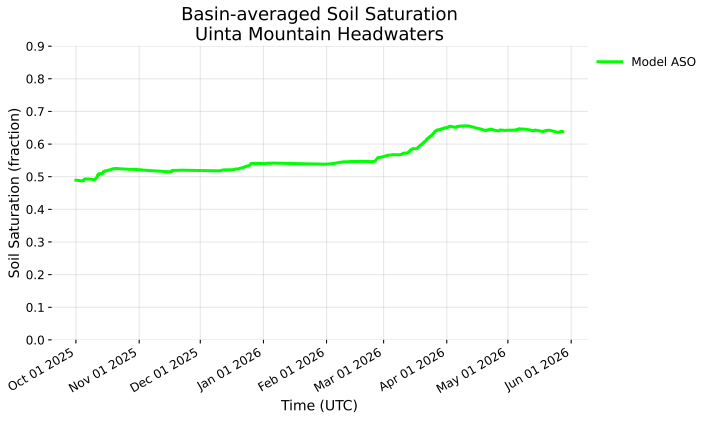

Figure 10. WRF-Hydro modeled soil saturation (% of saturation) from the ASO-assimilated model analyses. Valid: May 28, 2026

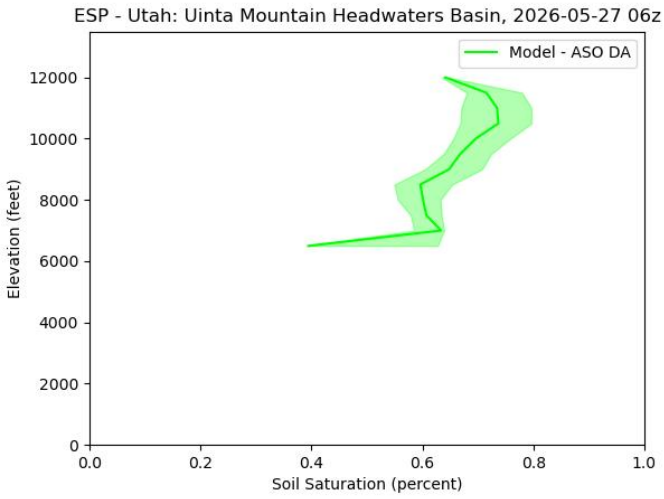

Figure 11. Elevation-band averaged soil saturation (% of saturation) modeled by the ASO WRF-Hydro system. Valid: May 28, 2026

Supplemental flow/inflow forecast information: