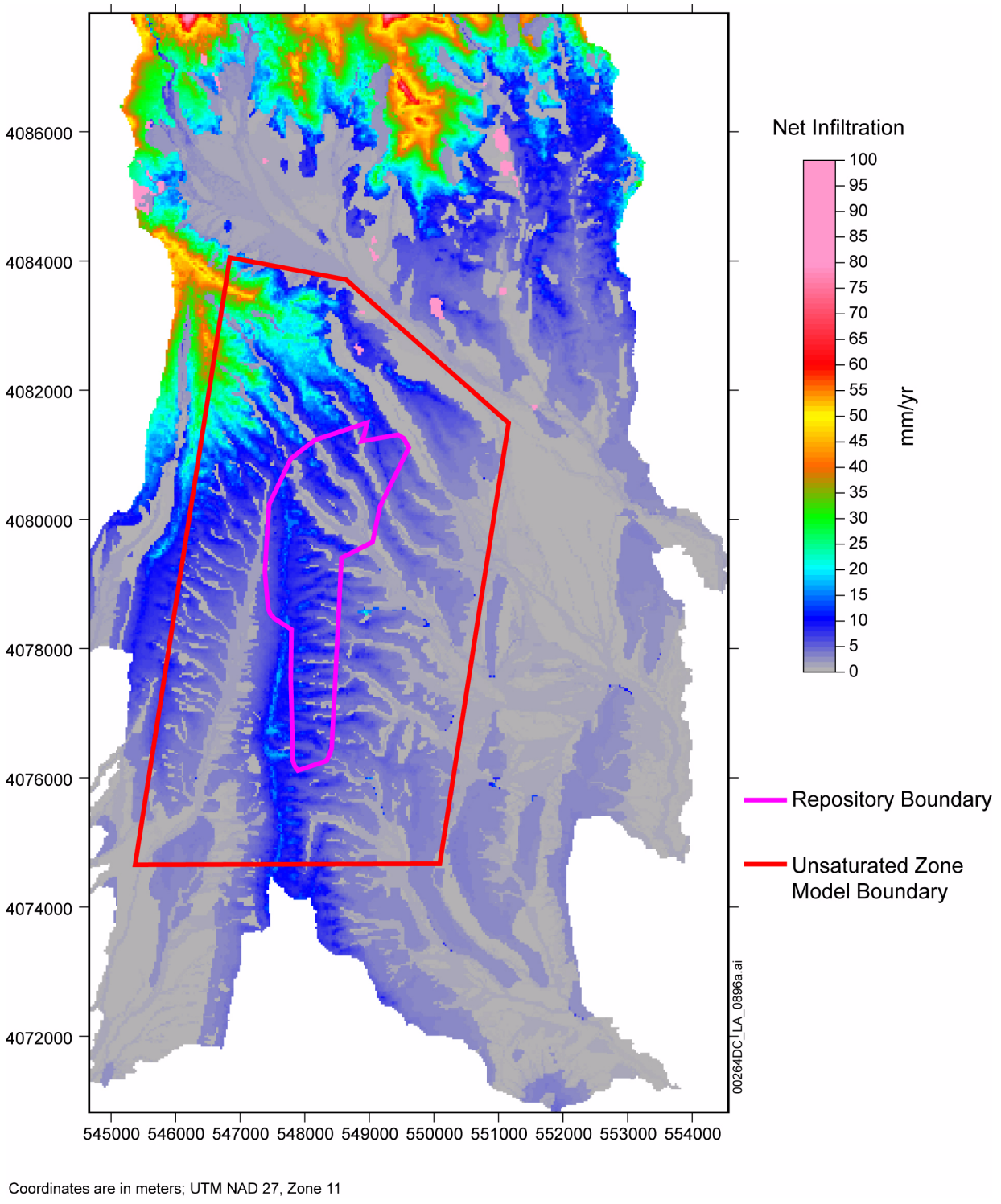

Figure 2.3.1-27. Present Day, 30th Percentile Net Infiltration Map (Replicate R2, Realization 2)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.1[a], Figure 6.5.7.1-3[a].

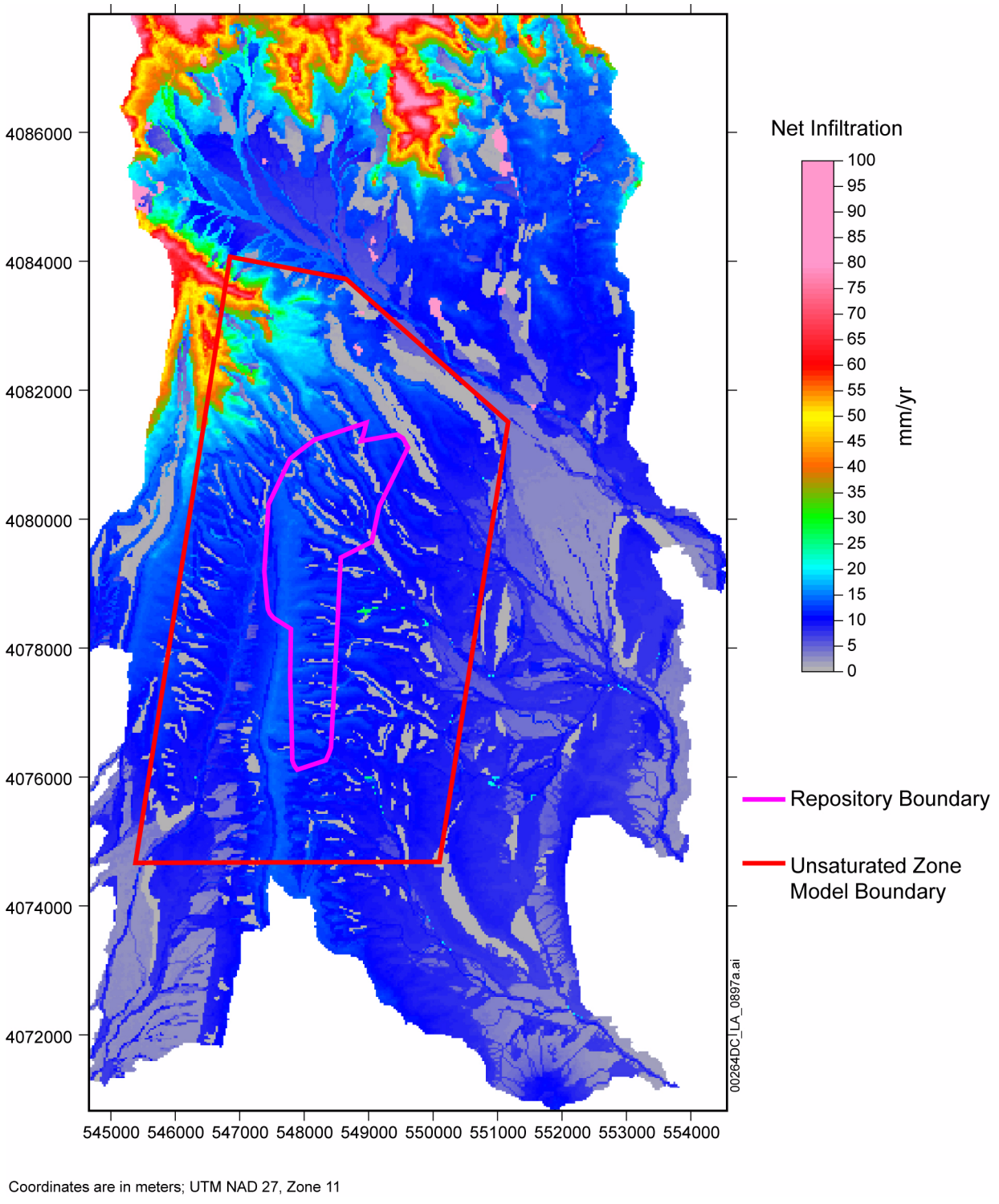

Figure 2.3.1-28. Present Day, 50th Percentile Net Infiltration Map (Replicate R2, Realization 8)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.1[a], Figure 6.5.7.1-4[a].

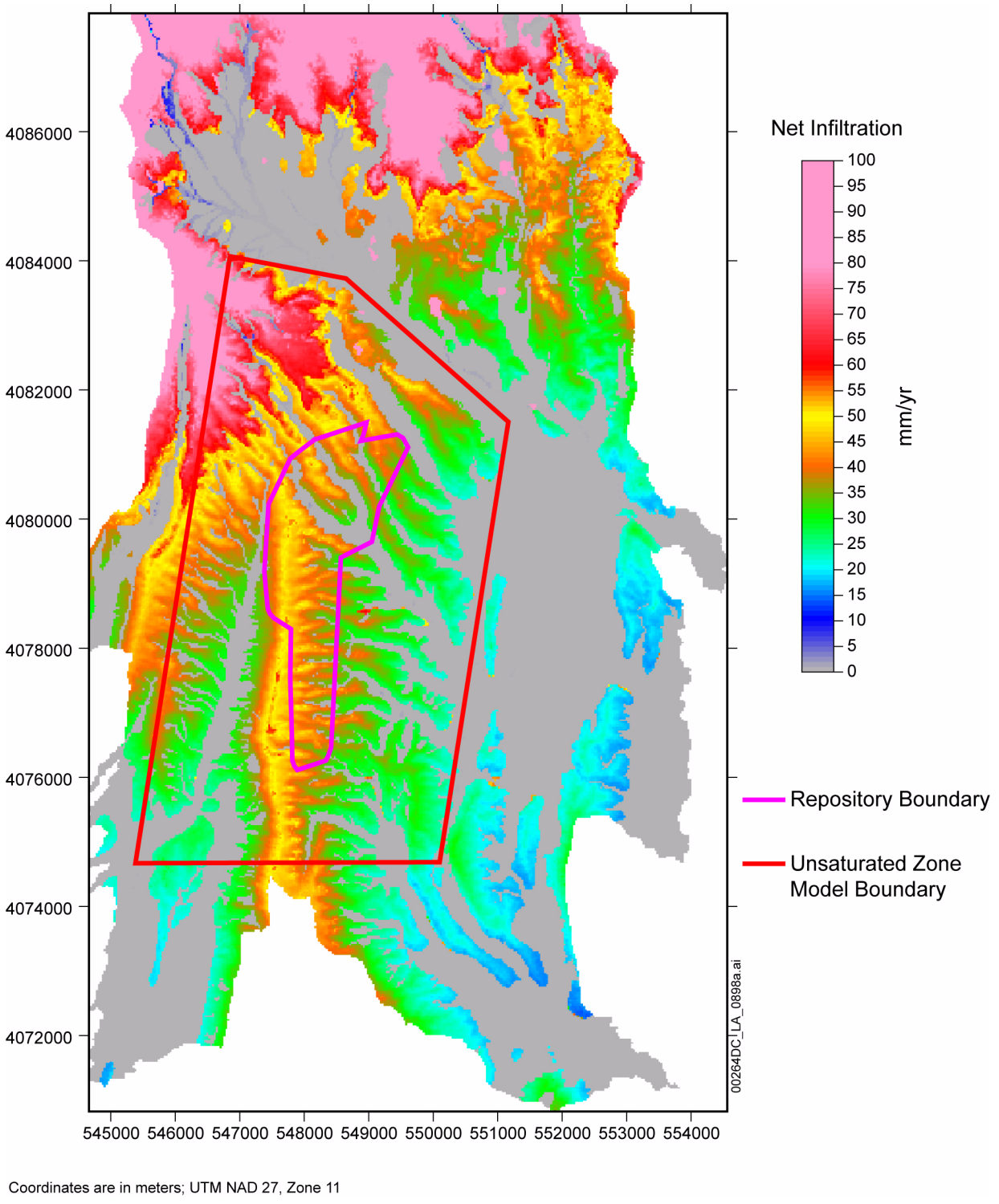

Figure 2.3.1-29. Present Day, 90th Percentile Net Infiltration Map (Replicate R2, Realization 14)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.1[a], Figure 6.5.7.1-5[a].

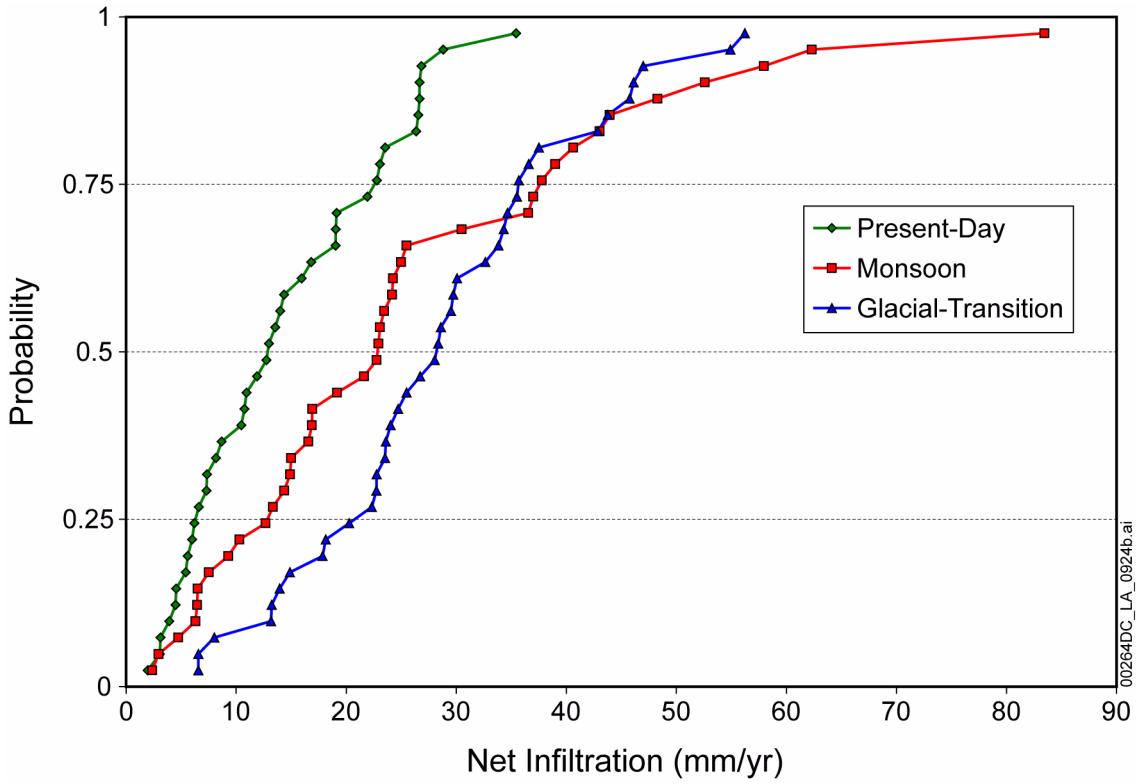

Figure 2.3.1-30. Cumulative Distribution Function of Net Infiltration Averaged over the Infiltration Domain for Present Day, Monsoon, and Glacial-Transition Climates

NOTE: A total of 40 realizations (2 LHS replicates) define the distribution.

Source: SNL 2008a, Section 6.5.7.1[a], Figure 6.5.7.1-6[a]; Section 6.5.7.2[a], Figure 6.5.7.2-6[a]; and Section 6.5.7.3[a], Figure 6.5.7.3-6[a].

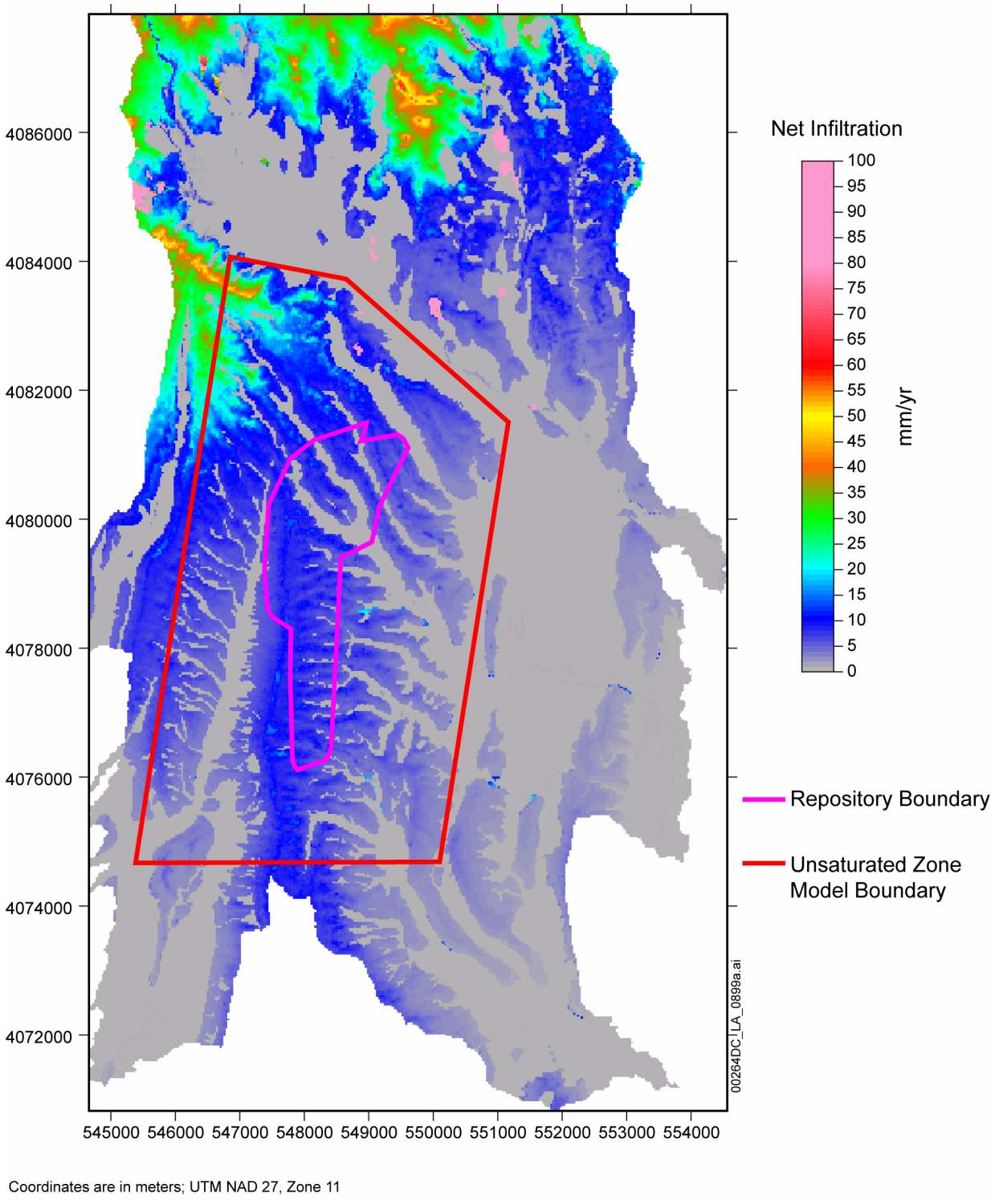

Figure 2.3.1-31. Monsoon, 10th Percentile Net Infiltration Map (Replicate R1, Realization 17)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.2[a], Figure 6.5.7.2-2[a].

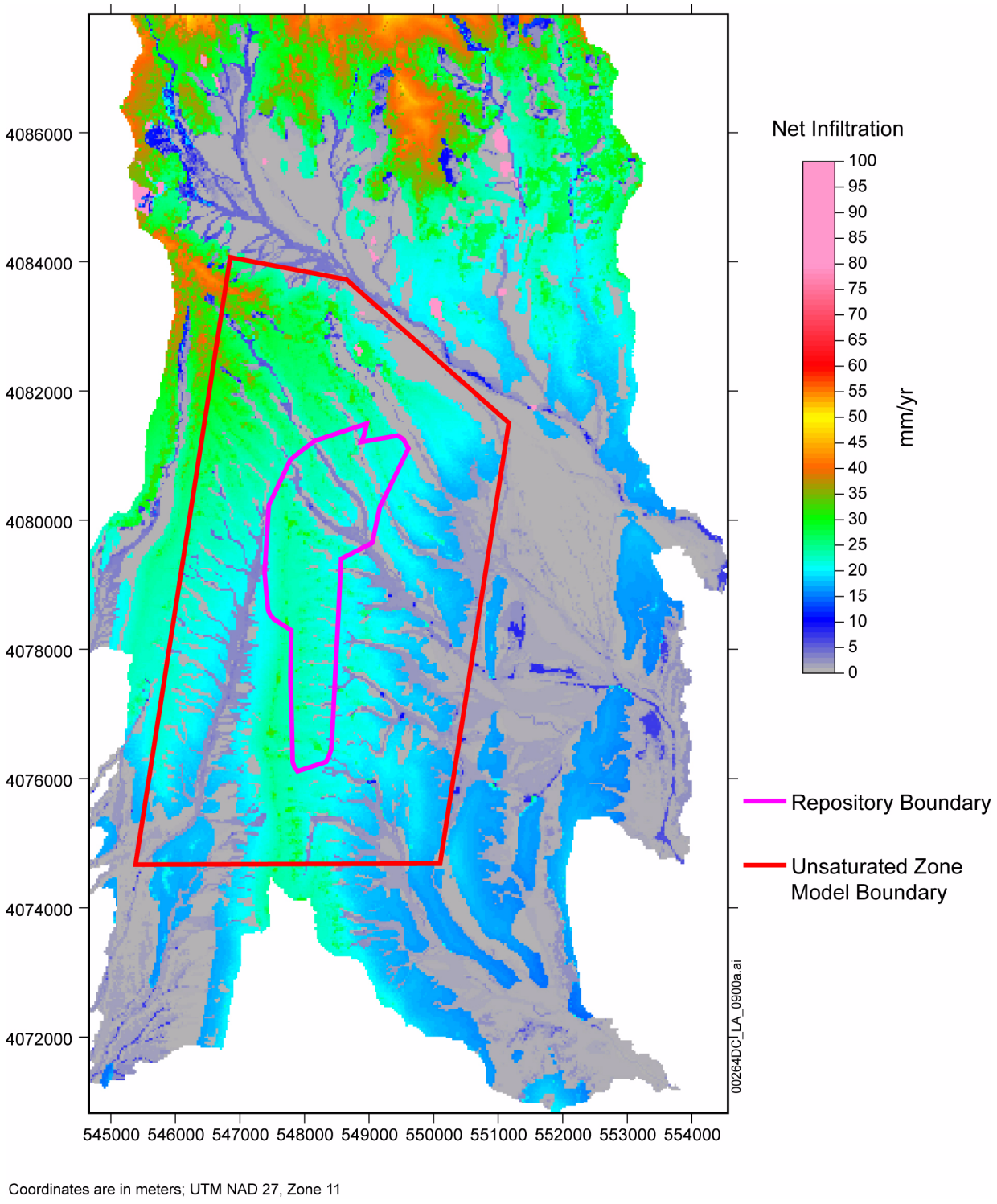

Figure 2.3.1-32. Monsoon, 30th Percentile Net Infiltration Map (Replicate R2, Realization 10)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.2[a], Figure 6.5.7.2-3[a].

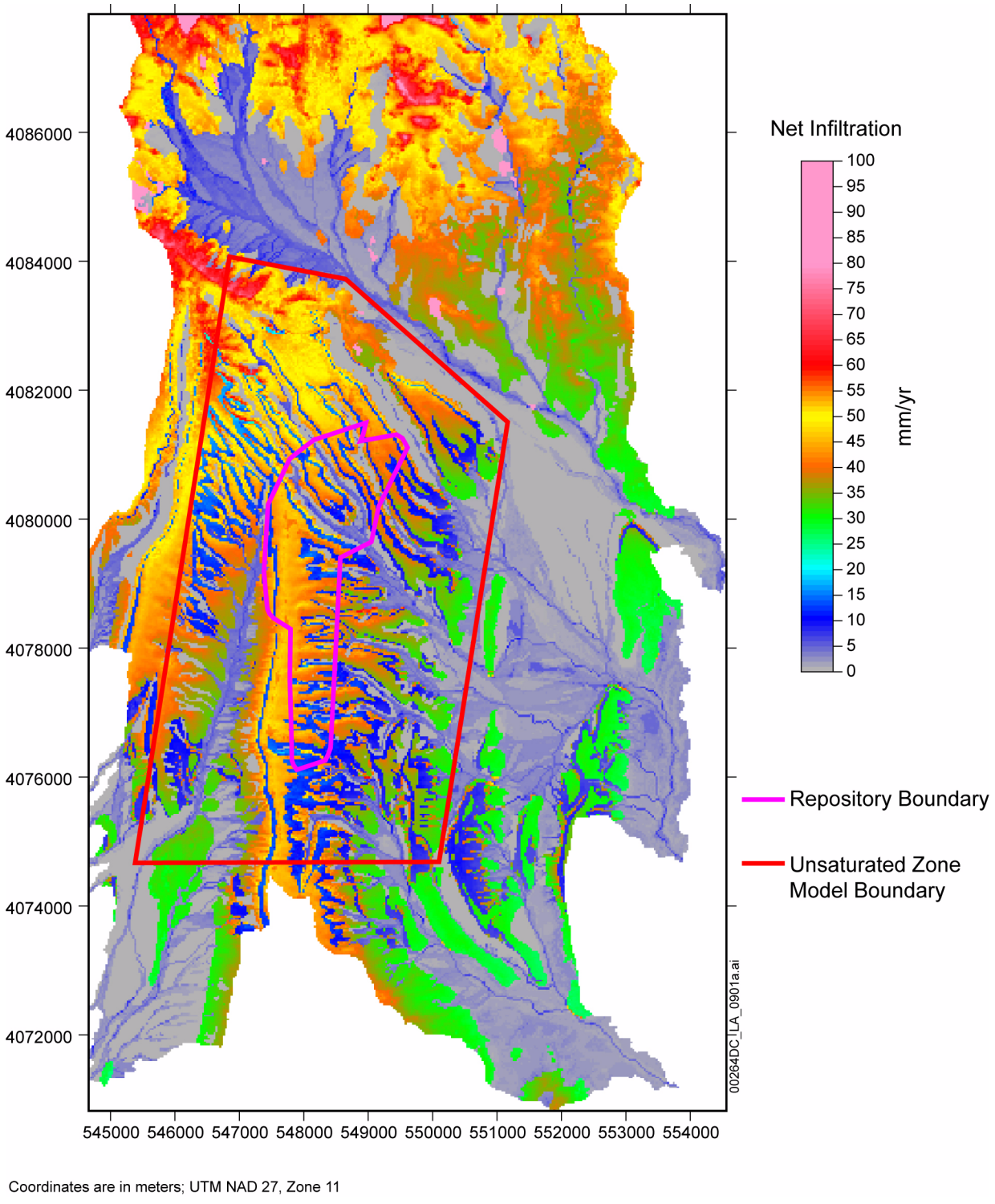

Figure 2.3.1-33. Monsoon, 50th Percentile Net Infiltration Map (Replicate R1, Realization 2)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.2[a], Figure 6.5.7.2-4[a].

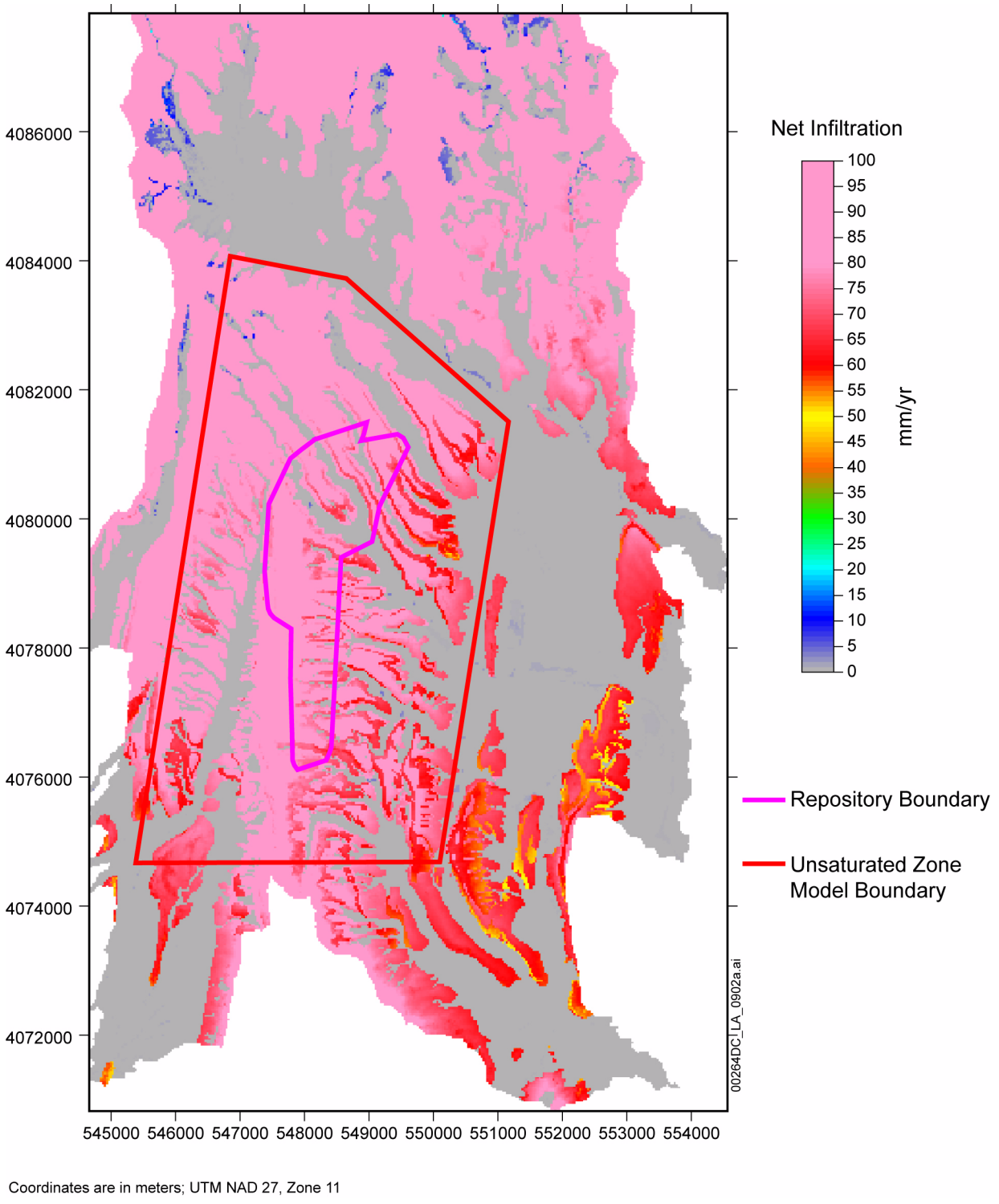

Figure 2.3.1-34. Monsoon, 90th Percentile Net Infiltration Map (Replicate R1, Realization 7)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.2[a], Figure 6.5.7.2-5[a].

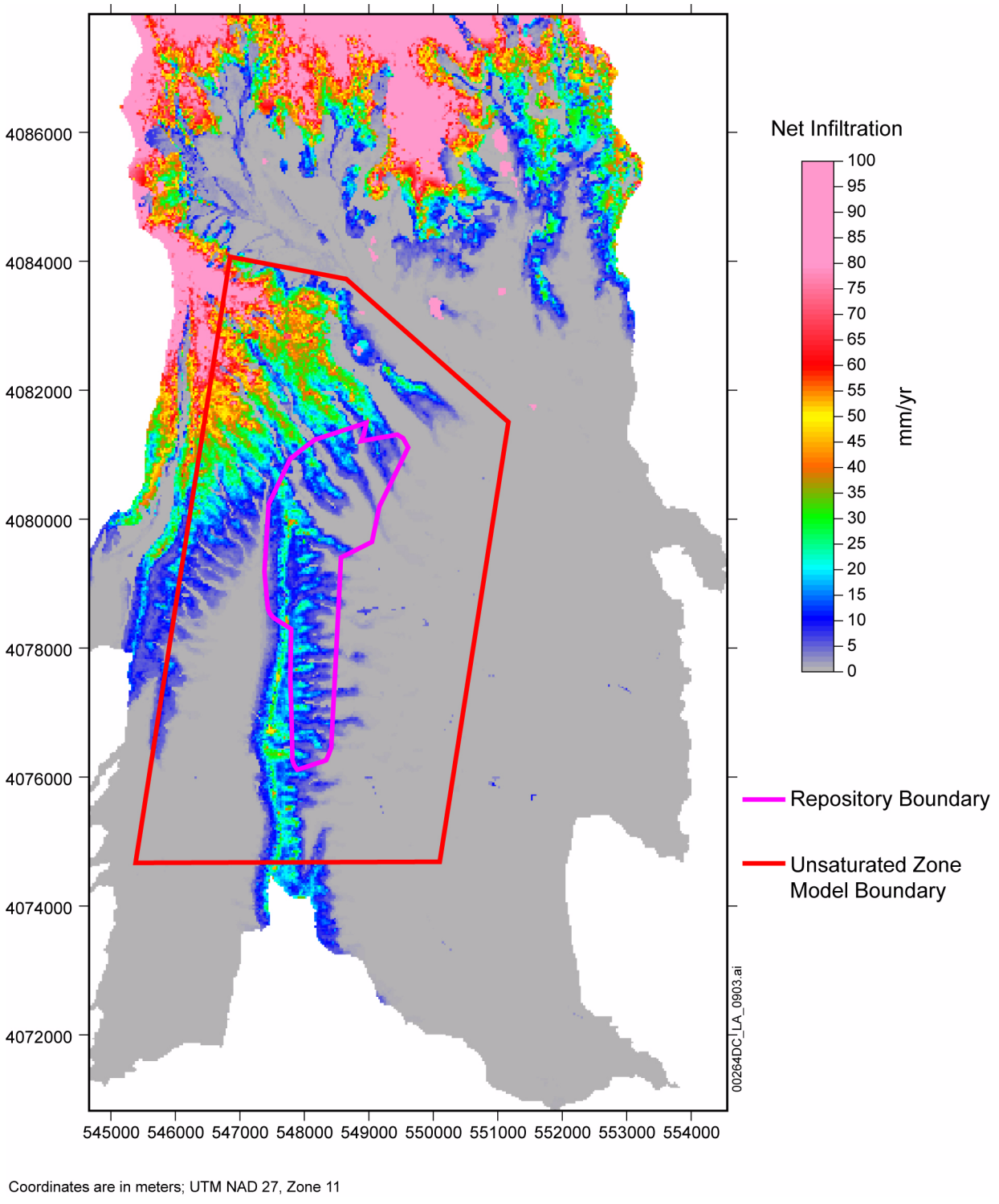

Figure 2.3.1-35. Glacial-Transition, 10th Percentile Net Infiltration Map (Replicate R2, Realization 6)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.3[a], Figure 6.5.7.3-2[a].

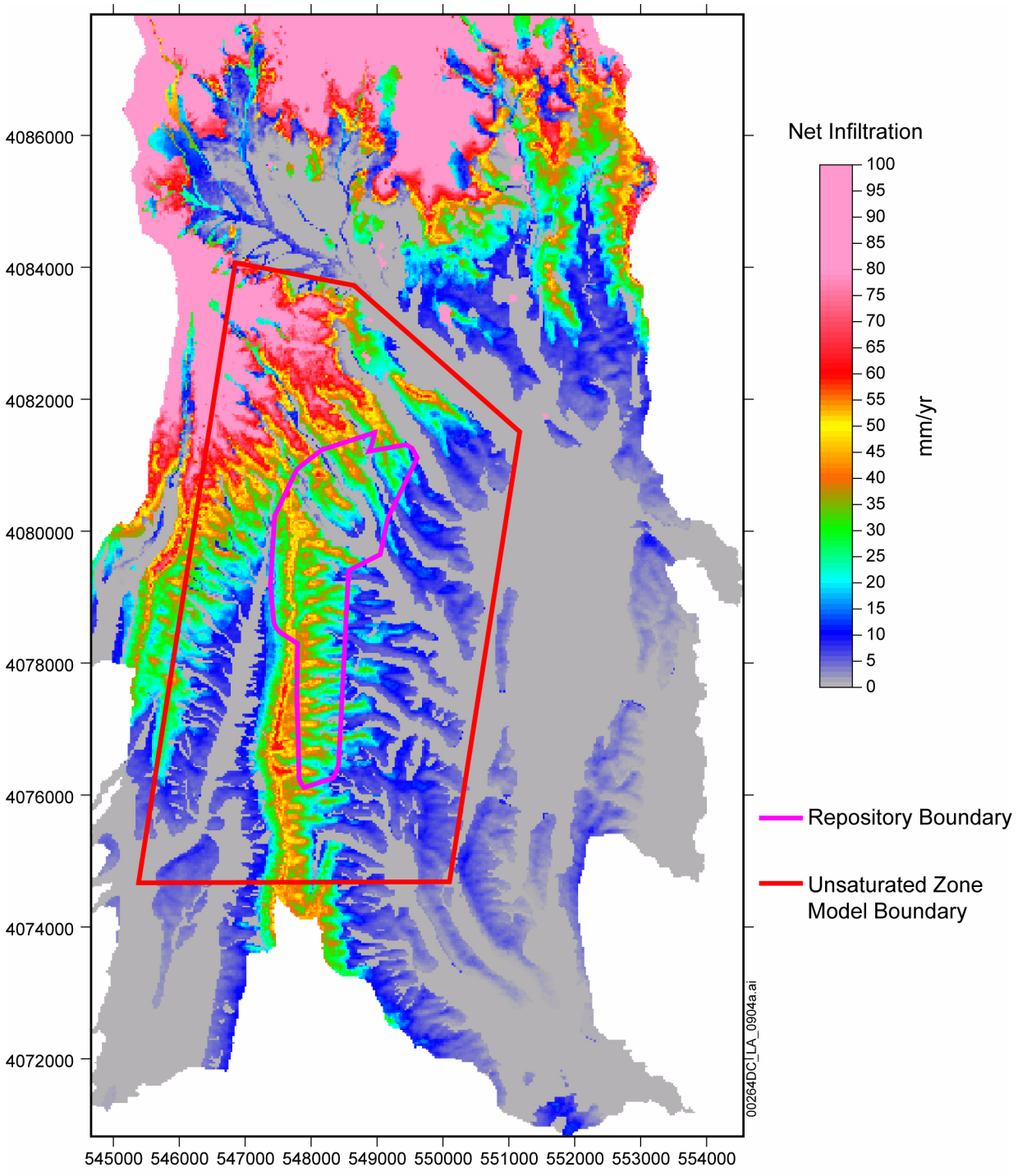

Figure 2.3.1-36. Glacial-Transition, 30th Percentile Net Infiltration Map (Replicate R2, Realization 10)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.3[a], Figure 6.5.7.3-3[a].

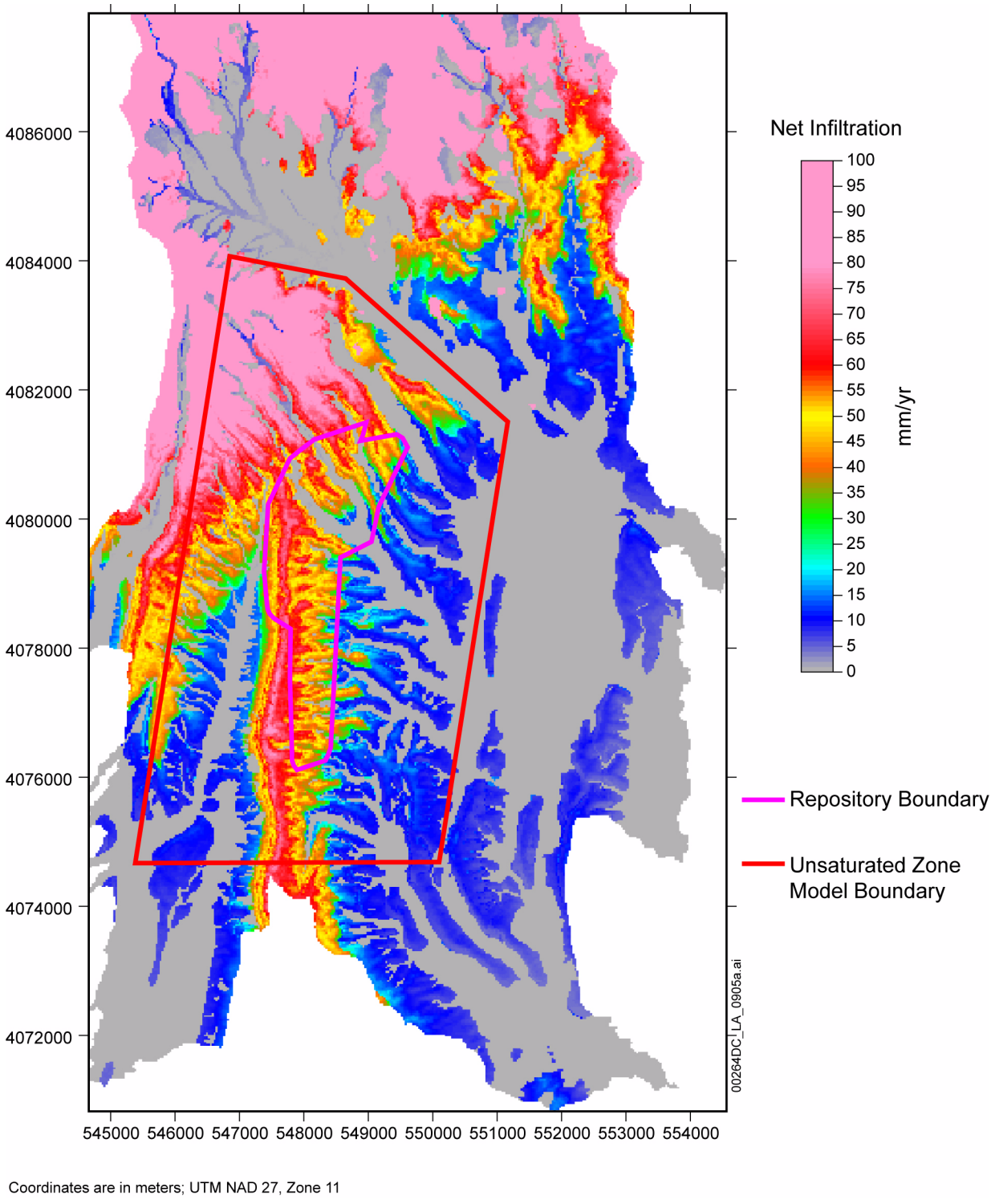

Figure 2.3.1-37. Glacial-Transition, 50th Percentile Net Infiltration Map (Replicate R1, Realization 18)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.3[a], Figure 6.5.7.3-4[a].

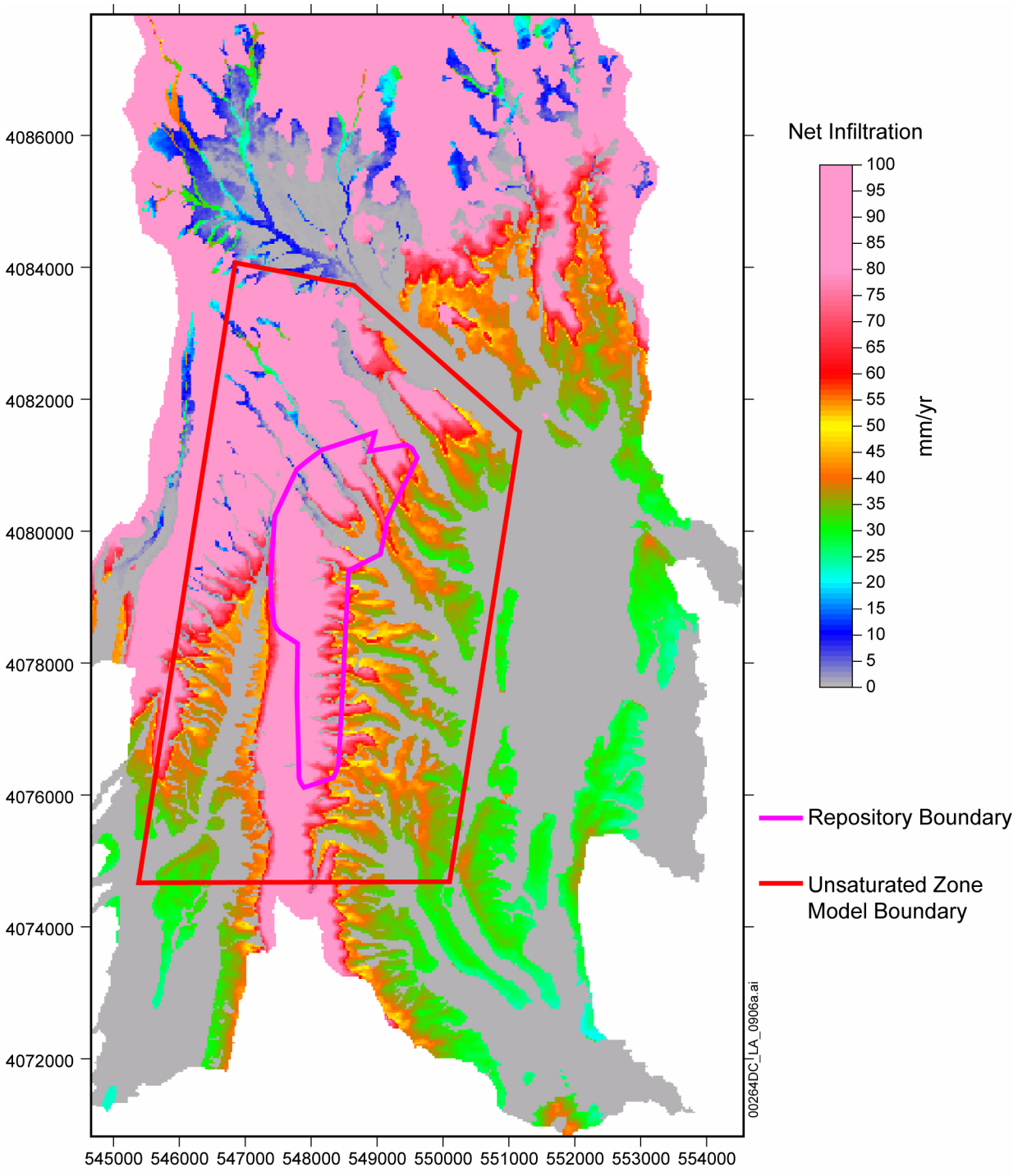

Figure 2.3.1-38. Glacial-Transition, 90th Percentile Net Infiltration Map (Replicate R2, Realization 1)

NOTE: Repository footprint is shown for illustration purposes only.
UZ = unsaturated zone.

Source: SNL 2008a, Section 6.5.7.3[a], Figure 6.5.7.3-5[a].

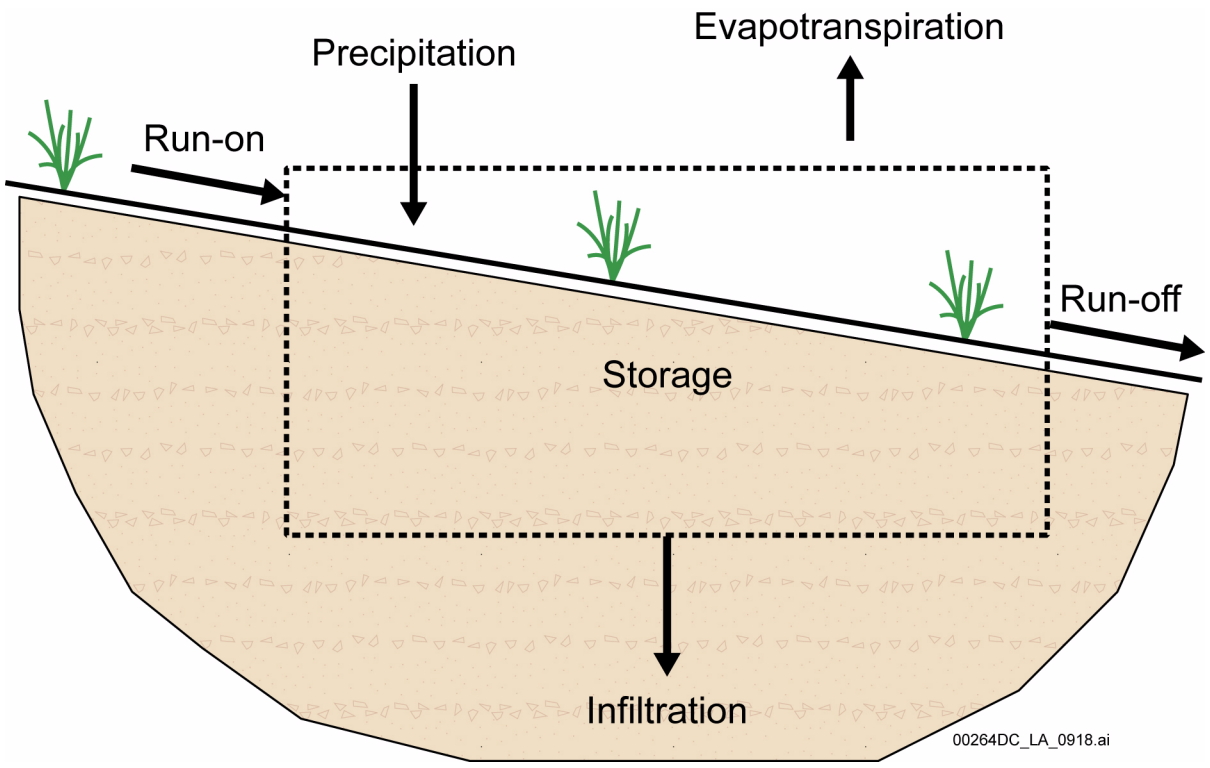

Figure 2.3.1-39. Control Volume for Mass-Balance Calculation of Net Infiltration

Source: SNL 2008a, Section 7.1, Figure 7.1-1.

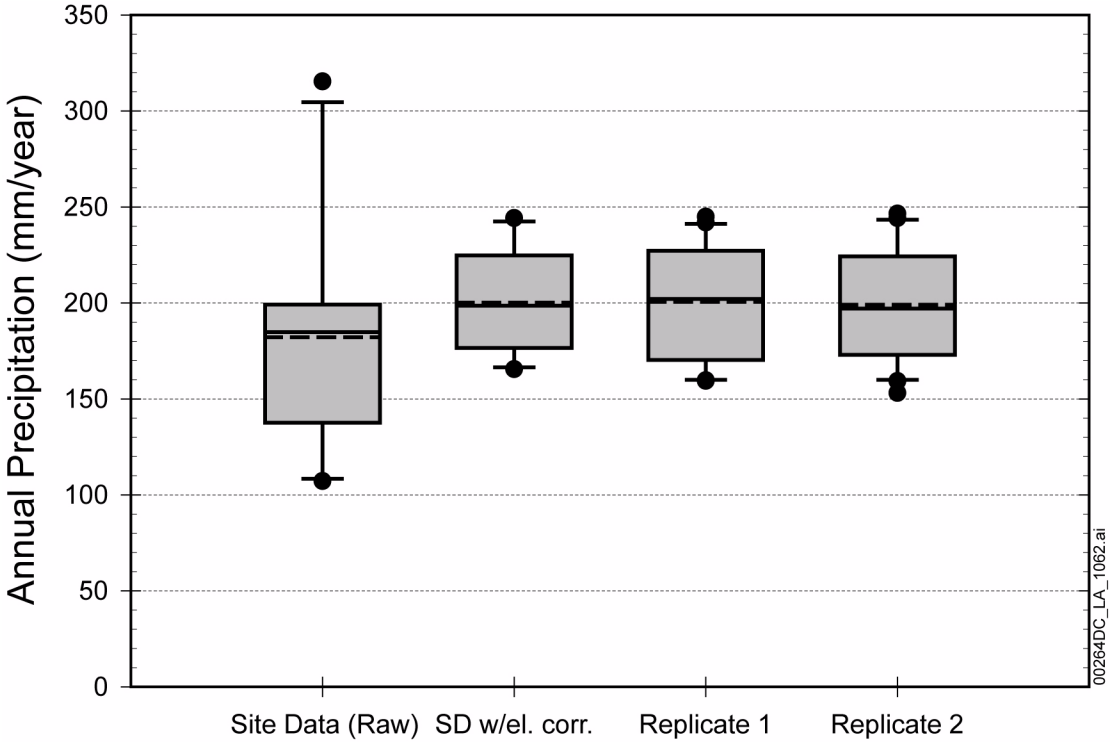

Figure 2.3.1-40. Box Plots Comparing Distribution of Observed Annual Precipitation from Representative Sites and Replicated Samples that Estimate Annual Precipitation for Present-Day Climate

NOTE: Top and bottom of the box represent the 75th and 25th percentile of the distribution, respectively. The dashed and solid lines within the box represent the mean and median values of the distribution, respectively. The top and bottom ends of the lines connecting the box (whiskers) represent the 90th and 10th percentile of the distribution, respectively. And the points above and below the whiskers represent the extreme observations within the distribution.

Source: SNL 2008a, Figure 7.1.1.3-1.

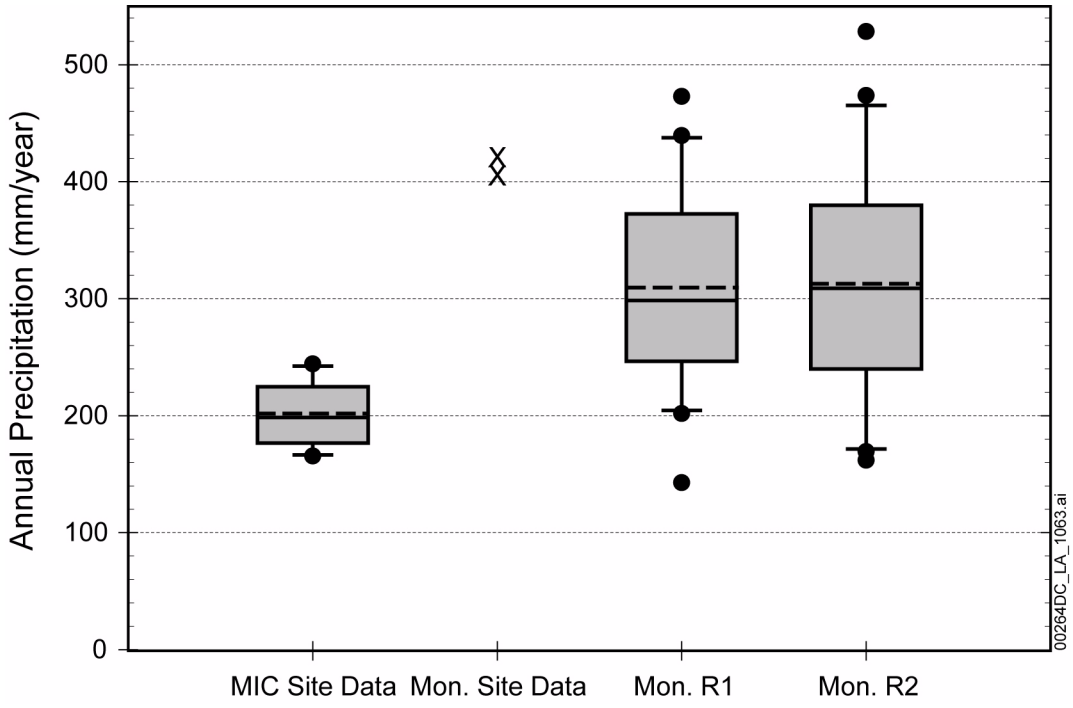

Figure 2.3.1-41. Box Plots Comparing Distribution of Observed Annual Precipitation from Representative Sites and Replicated Samples that Estimate Annual Precipitation for Monsoon Climate (MC). “MIC Site Data” Refers to Present-Day Climate Stations Adjusted for Elevation

NOTE: Mon. Site Data refers to Hobbs, NM, and Nogales, AZ, analogue site data. Top and bottom of the box represent the 75th and 25th percentile of the distribution, respectively. The dashed and solid lines within the box represent the mean and median values of the distribution, respectively. The top and bottom ends of the lines connecting the box (whiskers) represent the 90th and 10th percentile of the distribution, respectively. And the points above and below the whiskers represent the extreme observations within the distribution.

Source: SNL 2008a, Figure 7.1.1.4-1.

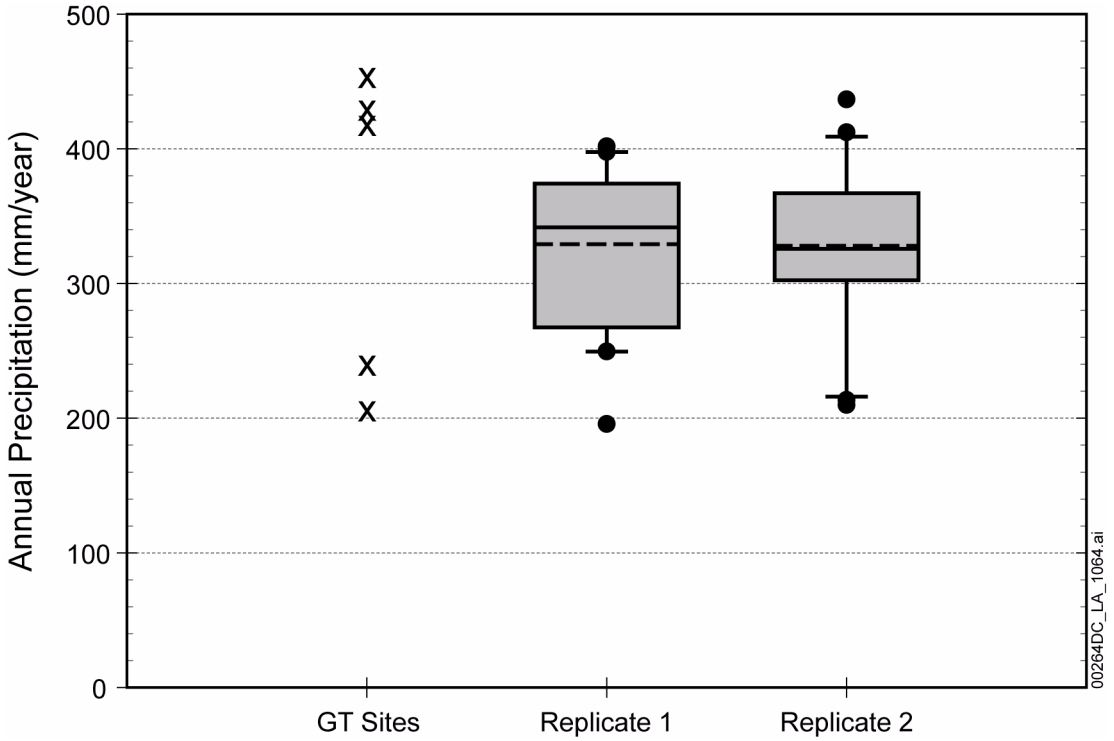

Figure 2.3.1-42. Box Plots Comparing Distribution of Observed Annual Precipitation from Representative Sites and Replicated Samples that Estimate Annual Precipitation for Glacial Transition Climate (GT)

NOTE: Top and bottom of the box represent the 75th and 25th percentile of the distribution, respectively. The dashed and solid lines within the box represent the mean and median values of the distribution, respectively. The top and bottom ends of the lines connecting the box (whiskers) represent the 90th and 10th percentile of the distribution, respectively. And the points above and below the whiskers represent the extreme observations within the distribution.

Source: SNL 2008a, Figure 7.1.1.5-1.

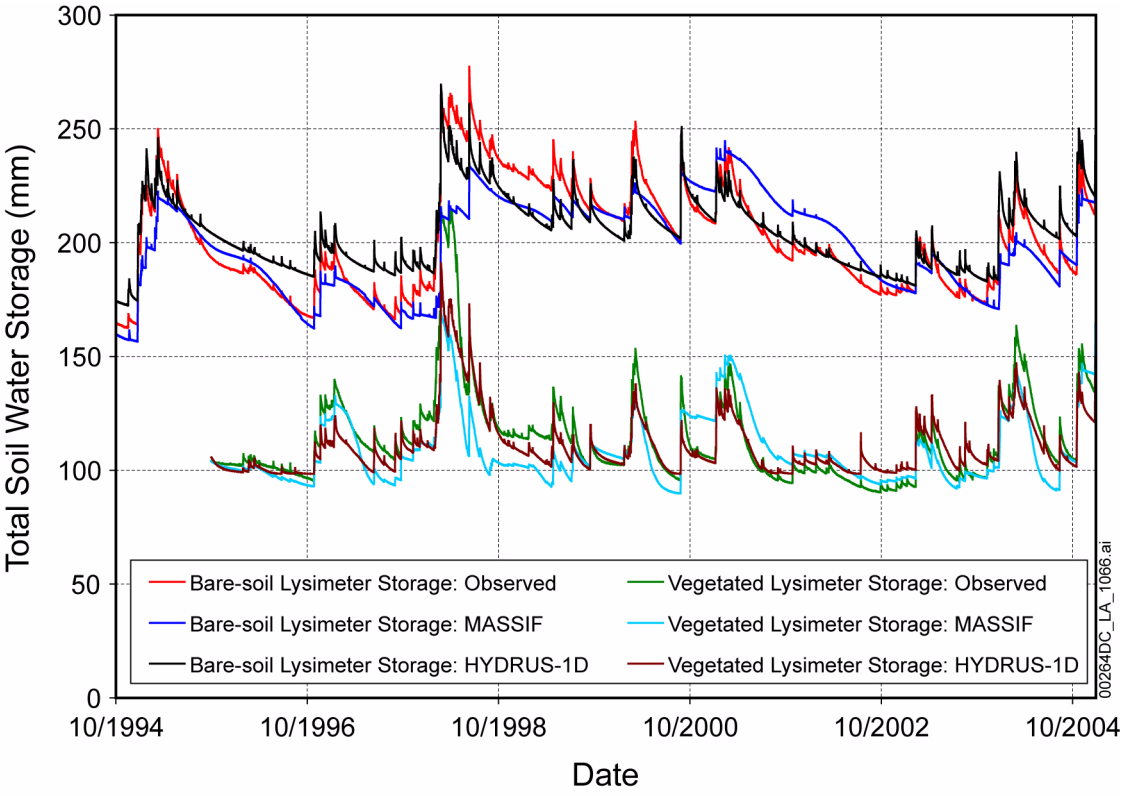

Figure 2.3.1-43. Simulation of Soil Water Storage in the NTS Lysimeters

Source: SNL 2008a, Figure 7.1.2.1-3[a].

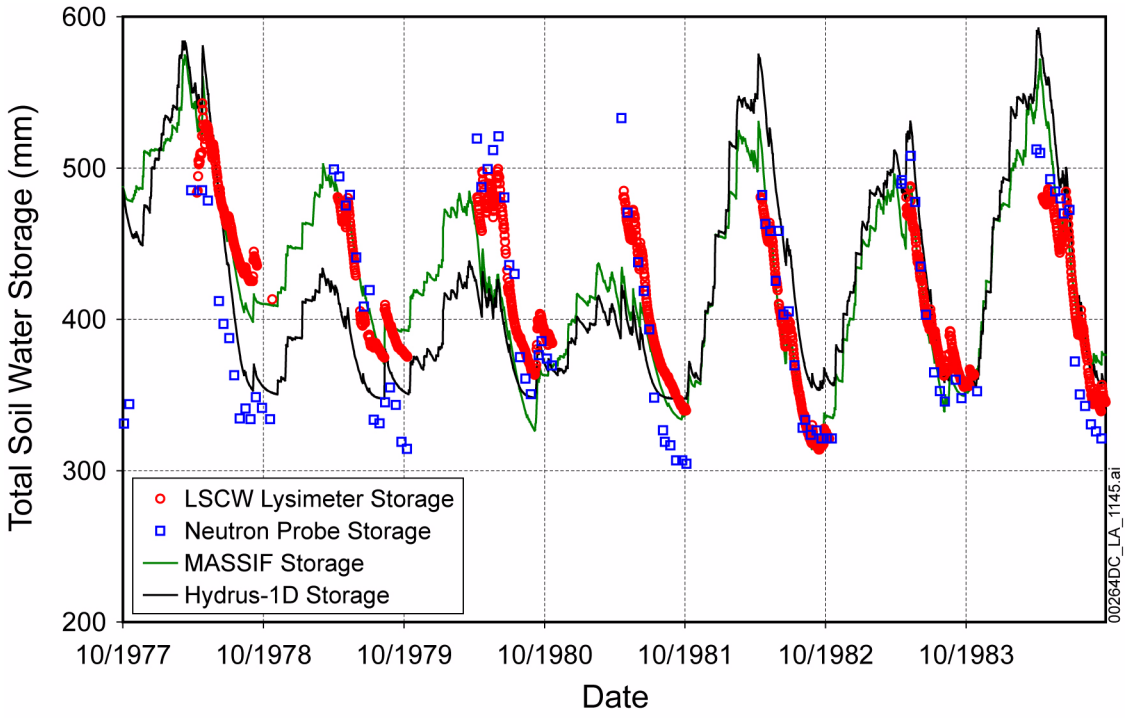

Figure 2.3.1-44. Simulation of Soil Water Storage in RCEW Lysimeter

Source: SNL 2008a, Figure 7.1.2.2-2[a].

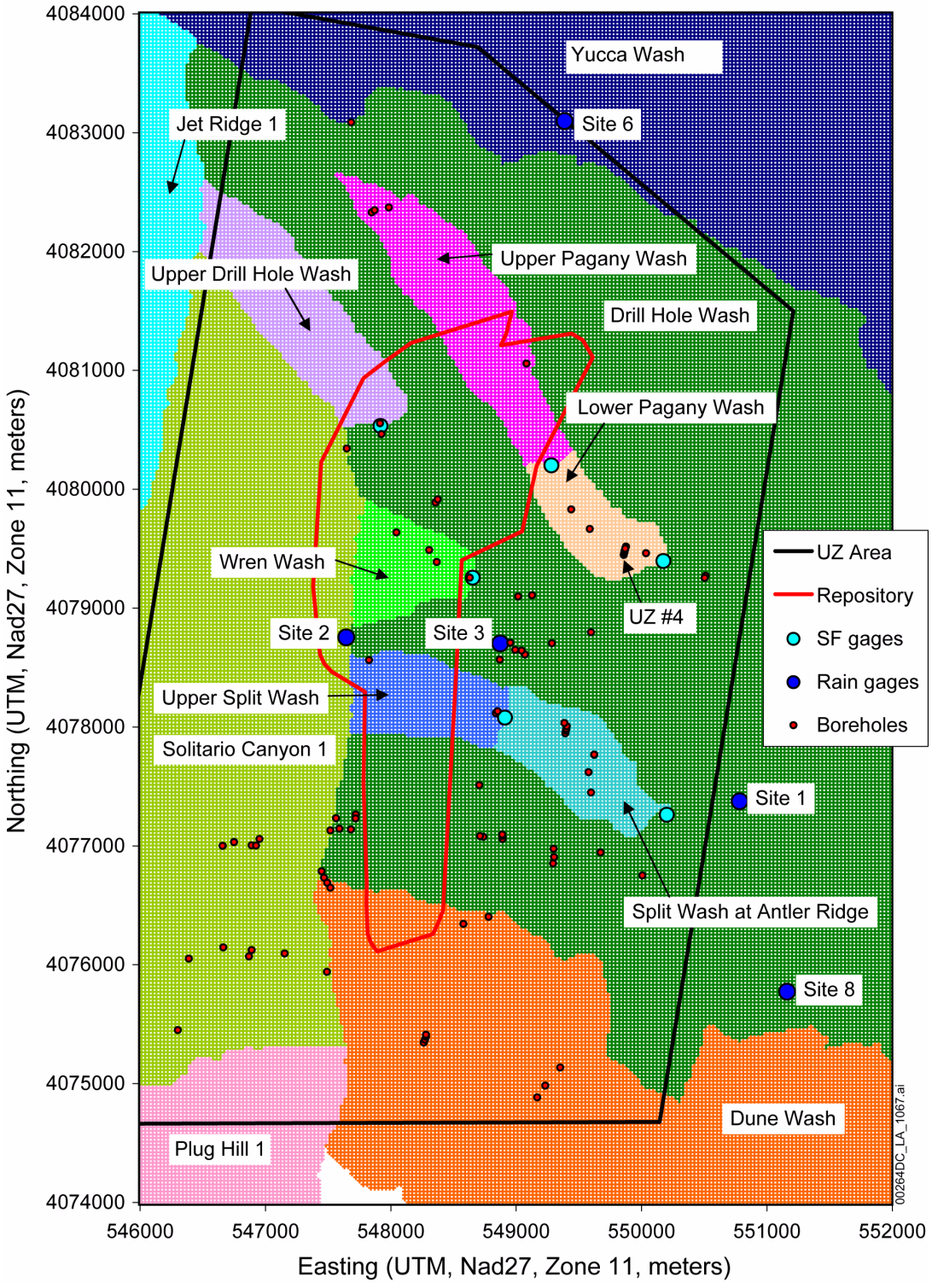

Figure 2.3.1-45. Map View of Watersheds and Locations of Various Field Data

NOTE: Figure modified from source figure (Seepage and South Portal locations deleted). Repository footprint is shown for illustration purposes only.

Source: SNL 2008a, Figure 7.1.3-1[a].

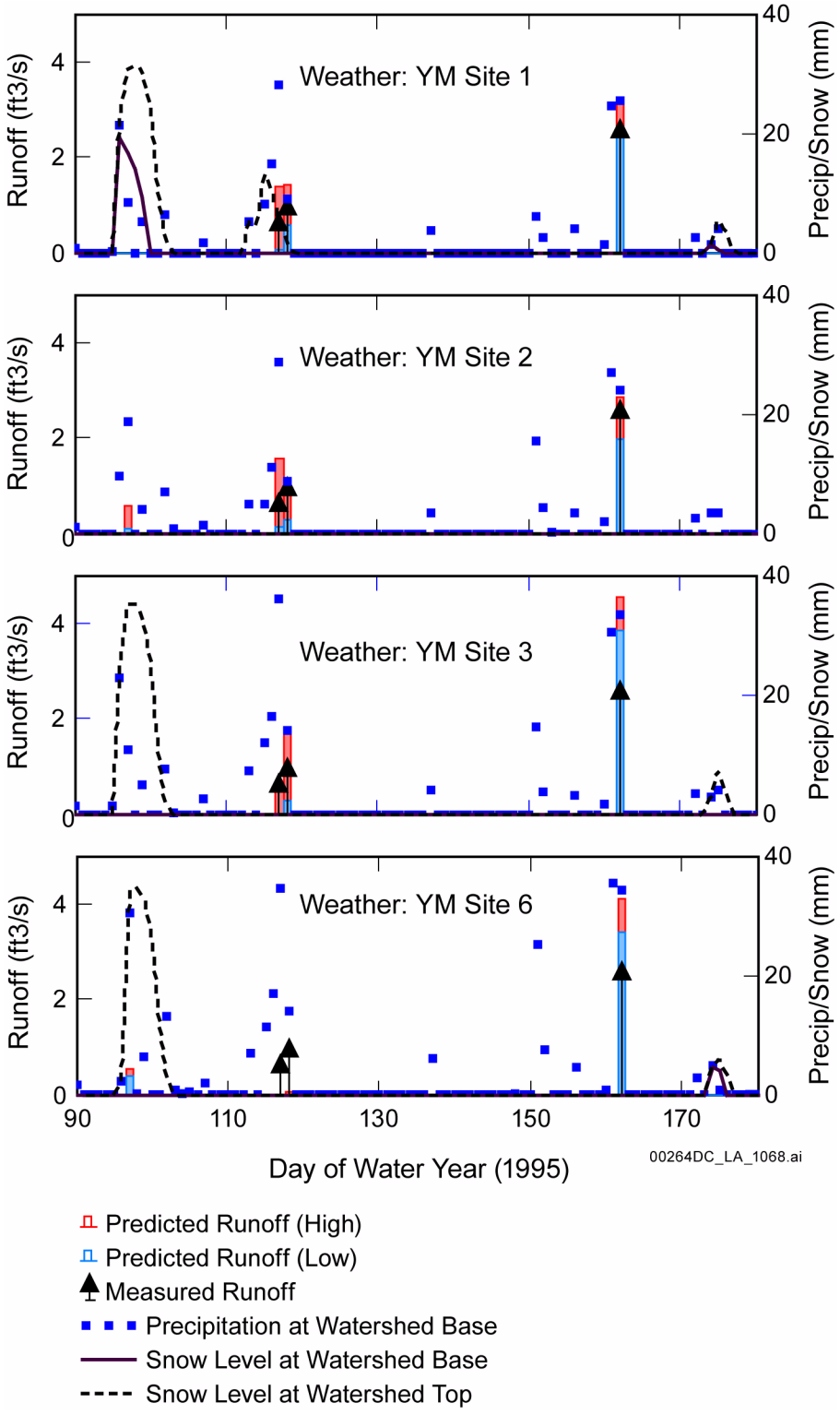

Figure 2.3.1-46. Predicted (Solid Bar) and Measured (Arrow) Runoff (Upper Split Wash, Water Year 1995)

Source: SNL 2008a, Section 7.1.3, Figure 7.1.3-3.

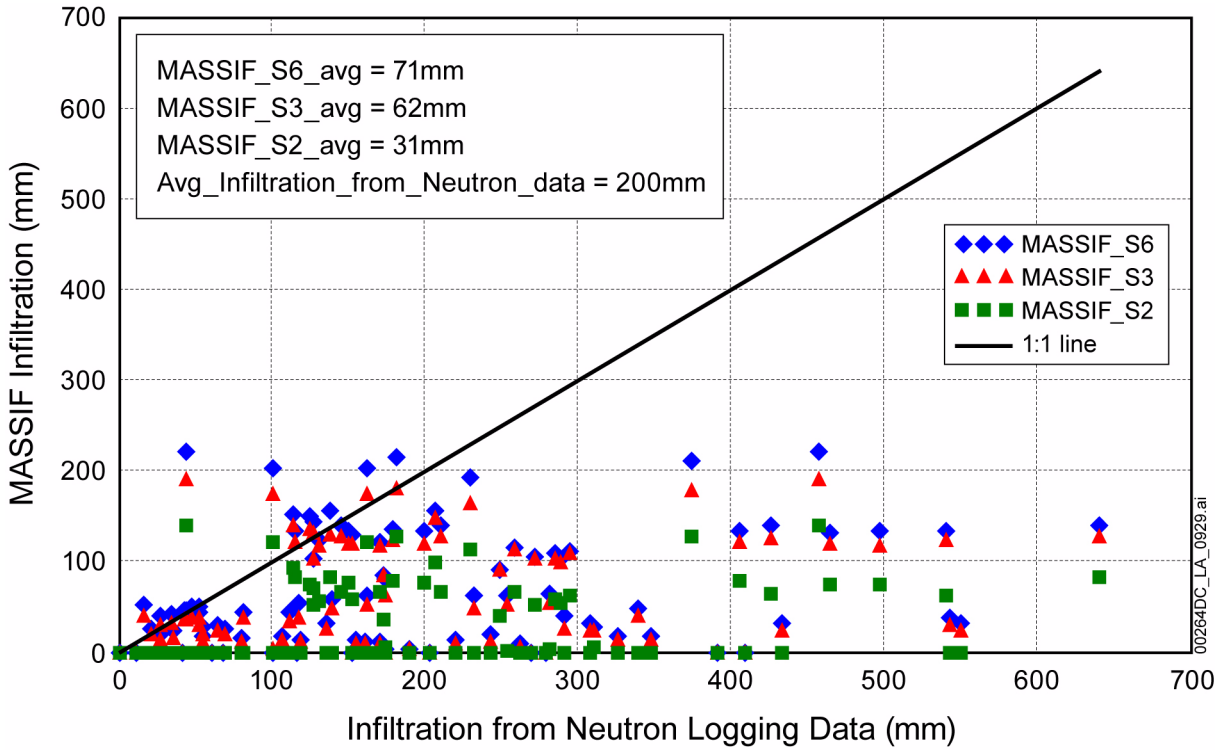

Figure 2.3.1-47. Comparison of Net Infiltration Calculated from Neutron Logging Data versus MASSIF Net Infiltration for Winter 1995

Source: SNL 2008a, Section 7.2.1.1, Figure 7.2.1.1-2[a].

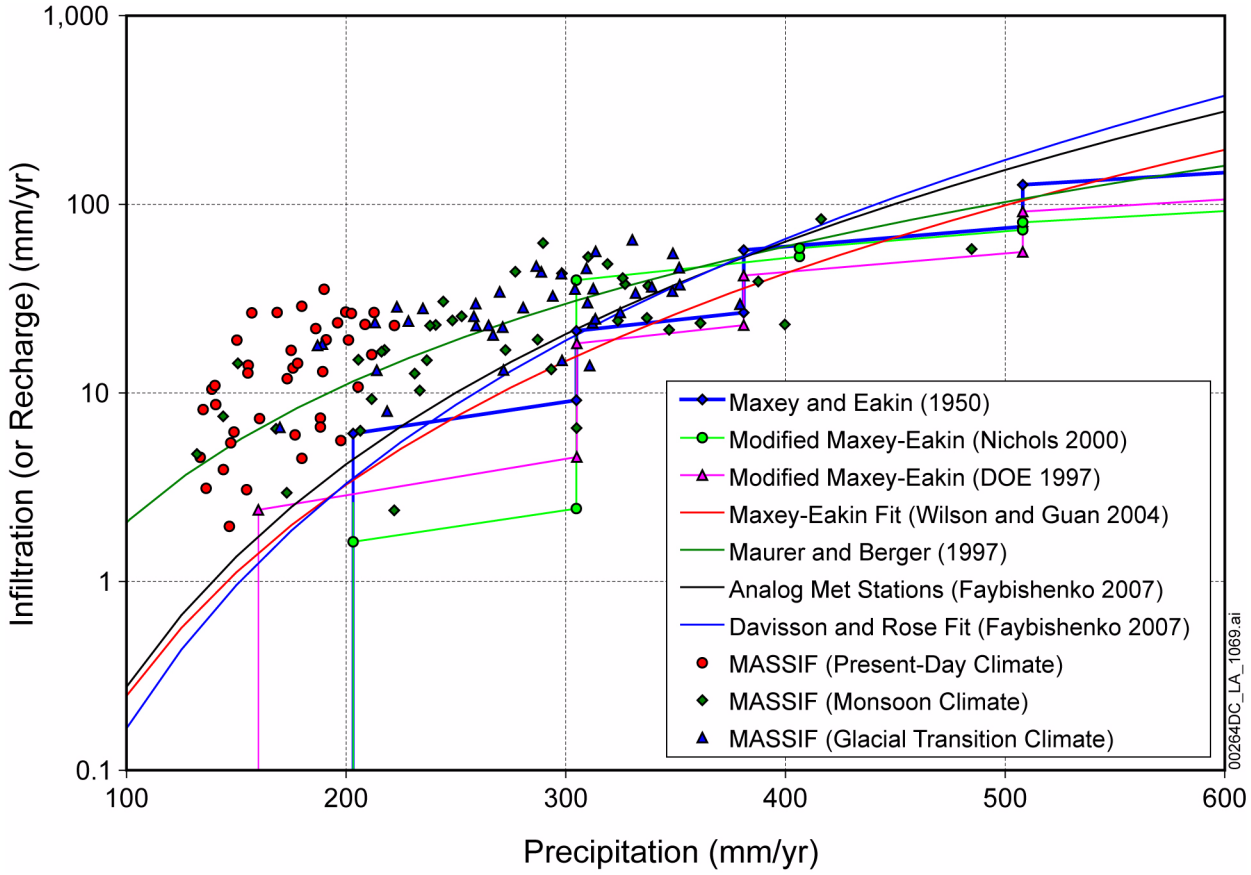

Figure 2.3.1-48. Comparison of MASSIF Net Infiltration Results for Three Climates with Several Models

NOTE: Recharge is equivalent to net infiltration for purposes of comparison in this figure.

Source: SNL 2008a, Section 7.2.1.2[a], Figure 7.2.1.2-1[a].

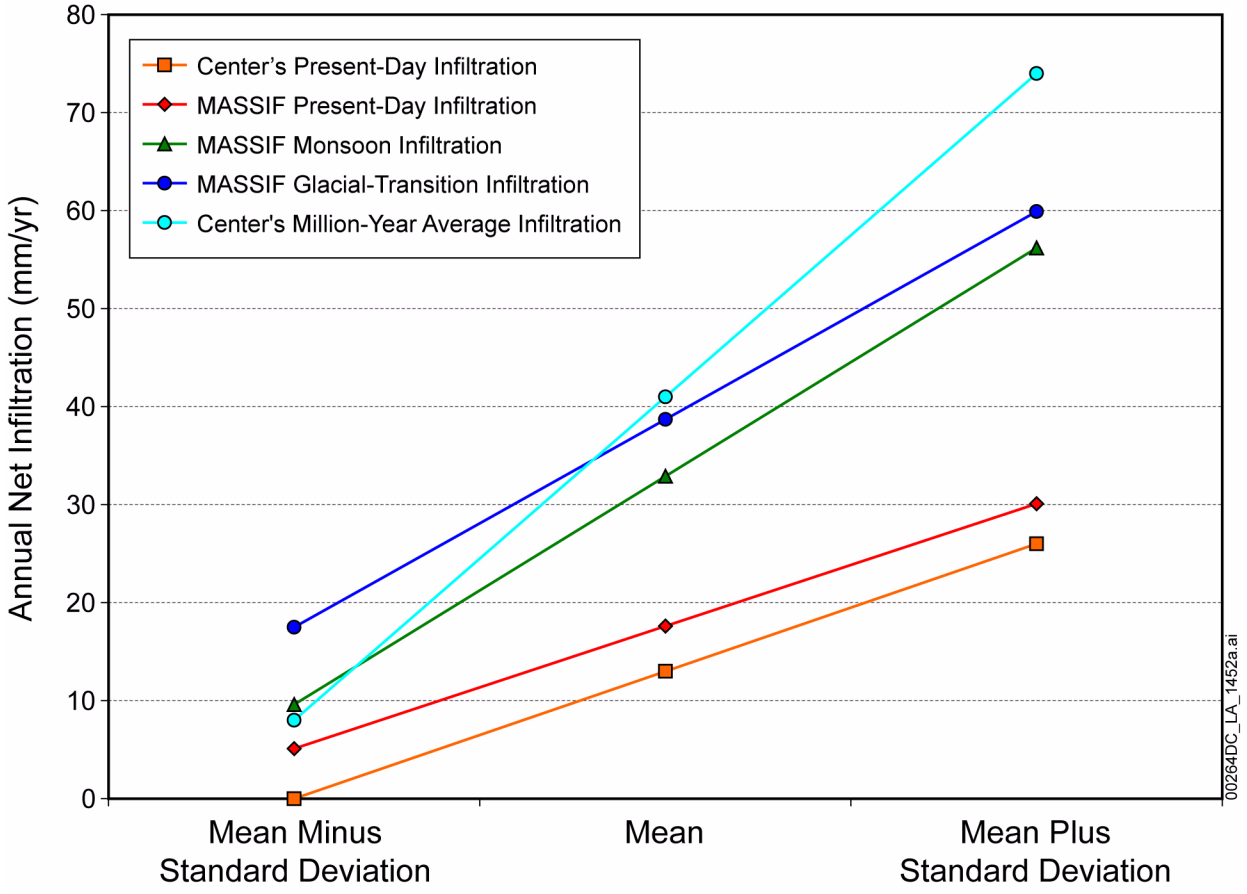

Figure 2.3.1-49. Comparison of MASSIF, Center for Nuclear Waste Regulatory Analyses, and NRC Net Infiltration (and Percolation) Fluxes.

Source: MASSIF results: SNL 2008a, Tables 6.5.7.1-2[a], 6.5.7.2-2[a], and 6.5.7.3-2[a] for repository footprint.
Center's results: Stothoff and Walter 2007, p. iii.

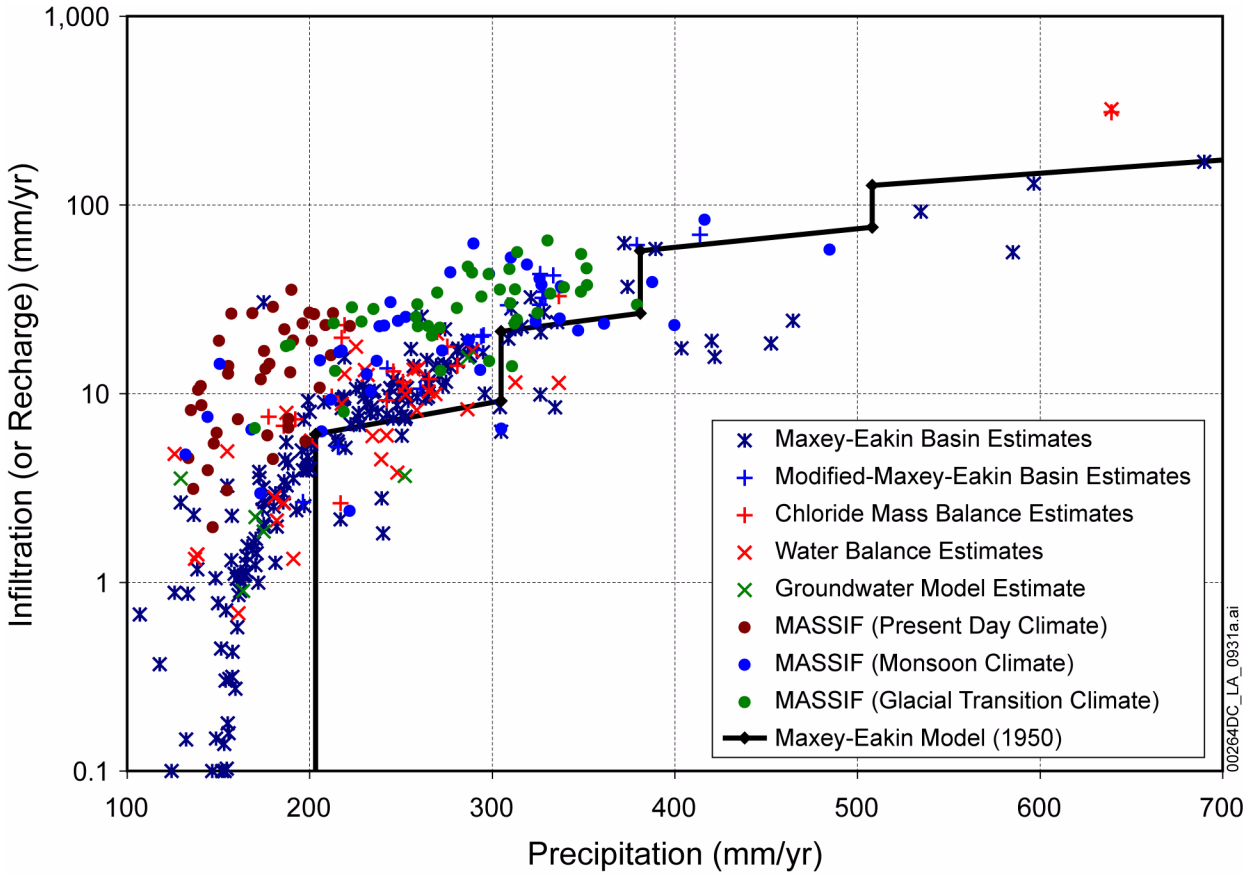

Figure 2.3.1-50. Comparison of Recharge Estimates for Nevada Hydrographic Areas/Sub-Areas with MASSIF Estimates of Net Infiltration at Yucca Mountain

NOTE: Data points with <0.1 mm/yr infiltration are plotted as 0.1 mm/yr. Recharge is equivalent to net infiltration for purposes of comparison in this figure.

Source: SNL 2008a, Section 7.2.1.2.1[a], Figure 7.2.1.2-2[a].

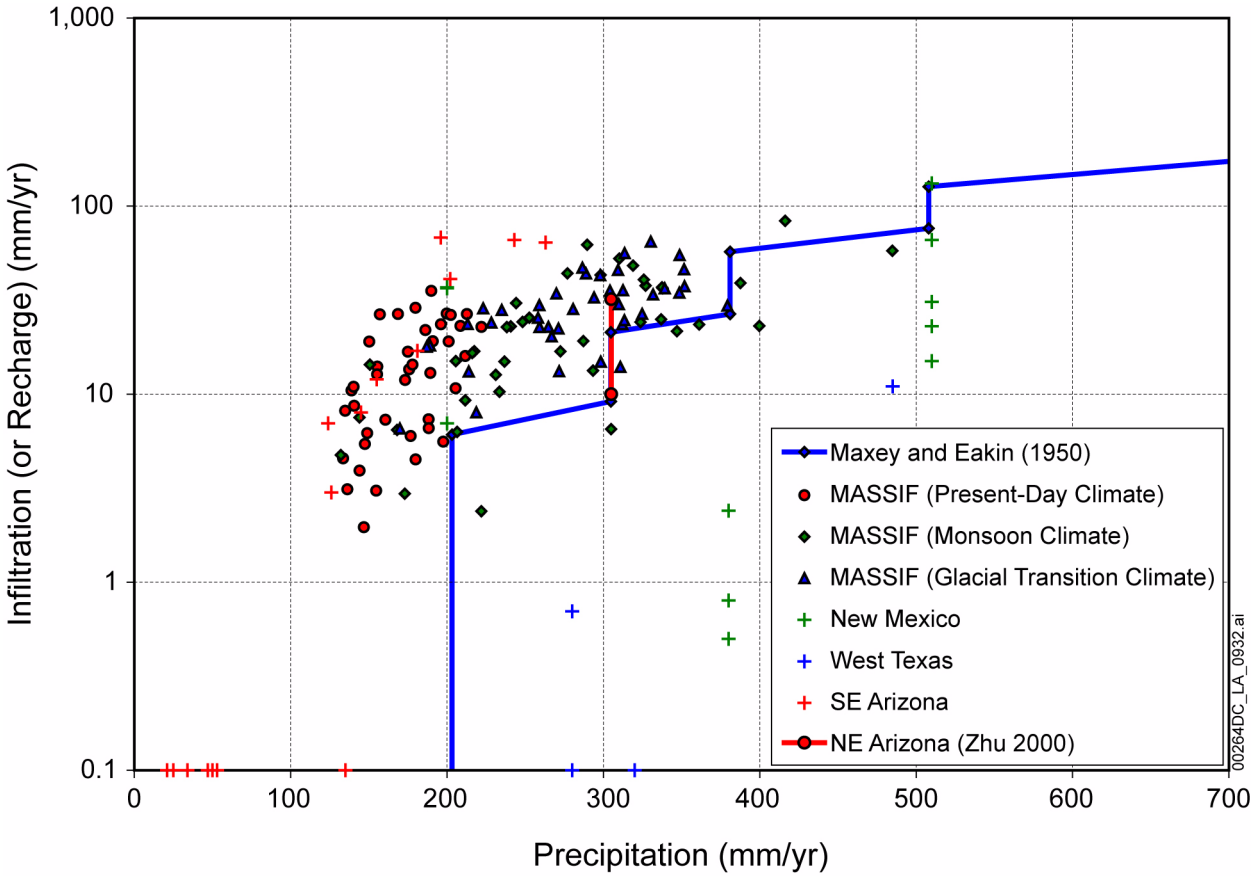

Figure 2.3.1-51. Comparison of Recharge Estimates for New Mexico, West Texas, and Arizona with MASSIF Estimates of Net Infiltration at Yucca Mountain

NOTE: Data points with <0.1 mm/yr infiltration are plotted as 0.1 mm/yr. Recharge is equivalent to net infiltration for purposes of comparison in this figure.

Source: SNL 2008a, Section 7.2.1.2.2, Figure 7.2.1.2-3.

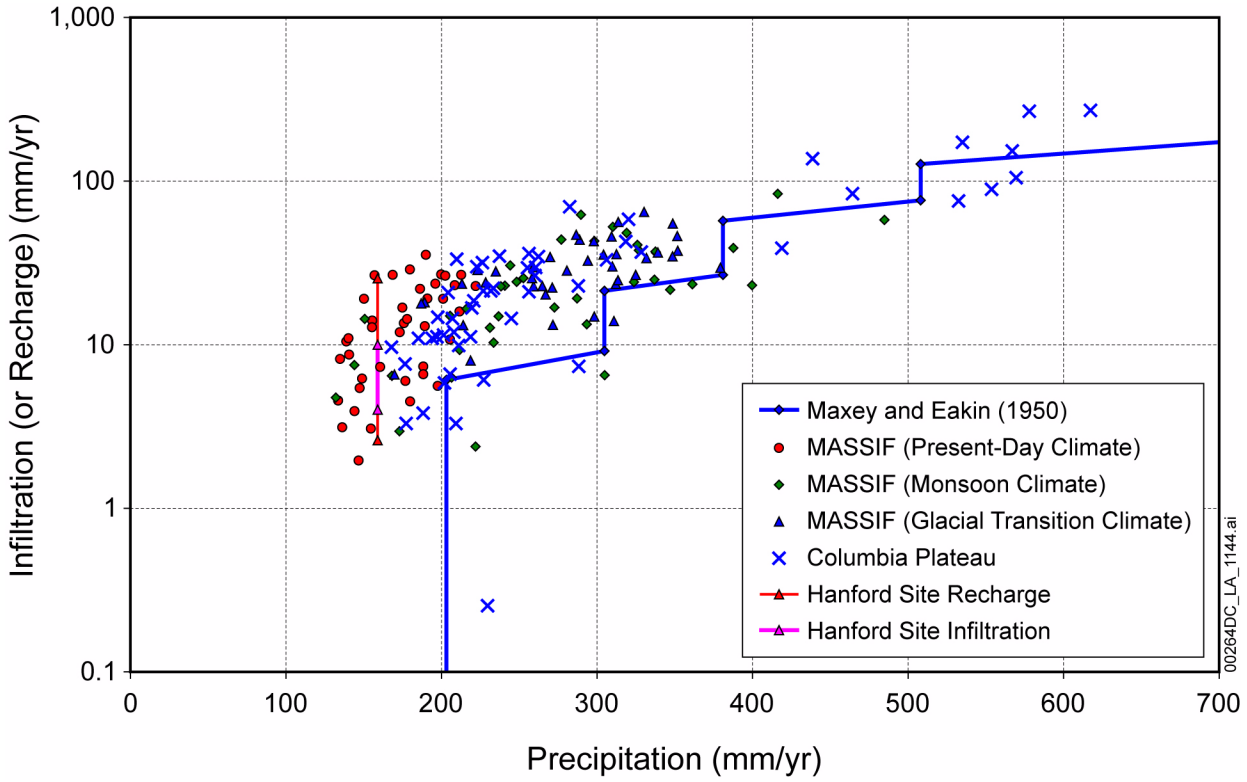

Figure 2.3.1-52. Comparison of Recharge Estimates for Columbia Plateau with MASSIF Estimates of Net Infiltration at Yucca Mountain

NOTE: Recharge is equivalent to net infiltration for purposes of comparison in this figure.

Source: SNL 2008a, Section 7.2.1.2.3[a], Figure 7.2.1.2-4[a].

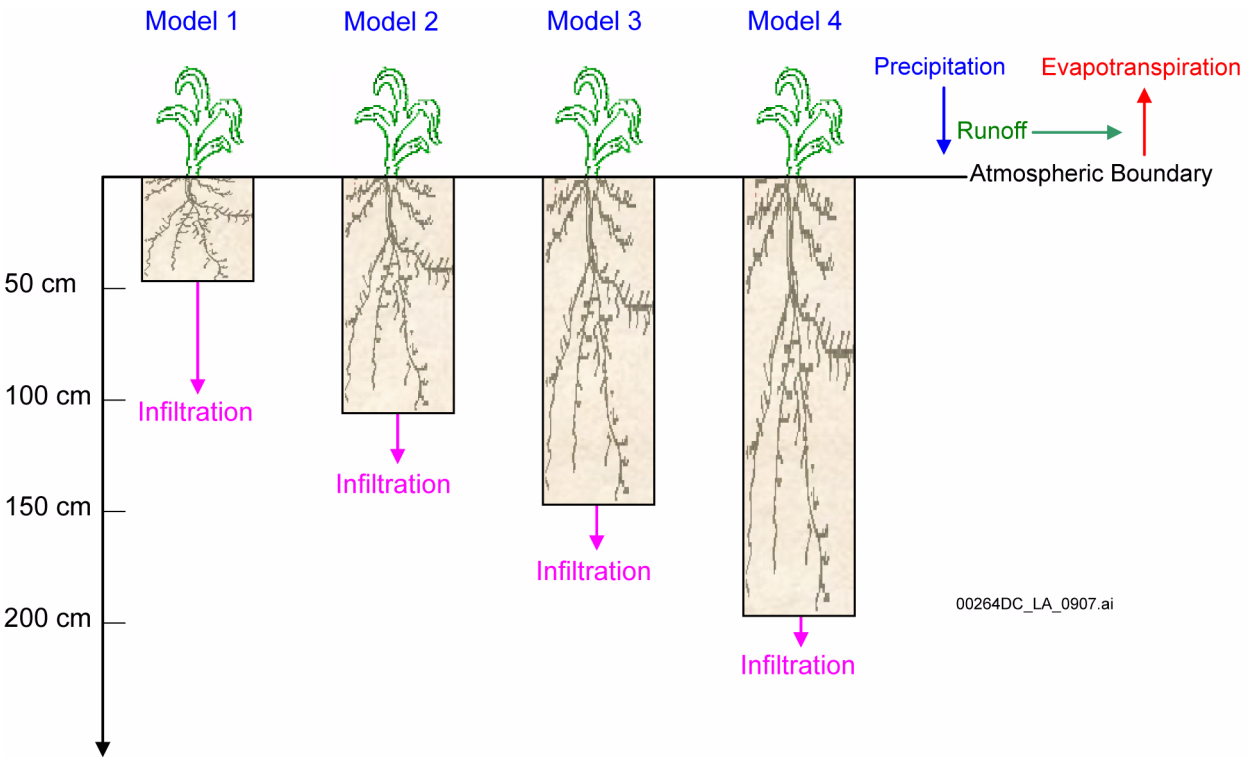

Figure 2.3.1-53. Conceptual Model Used in the Alternative Model Validation Analysis

Source: SNL 2008a, Section 7.2.2[a], Figure 7.2.2-1[a].

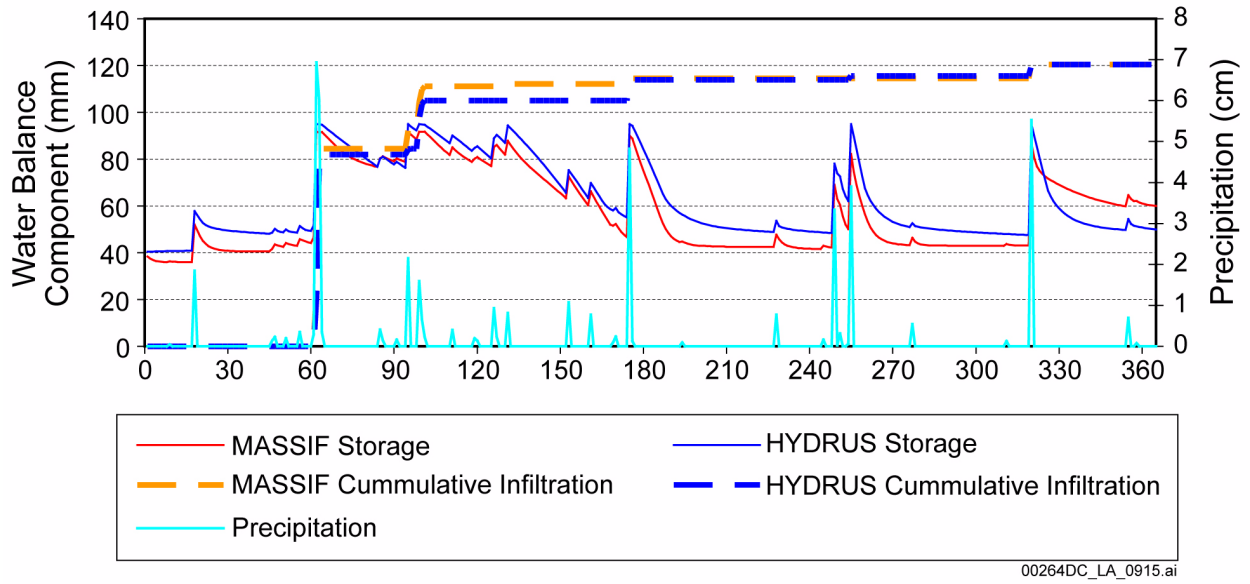

Figure 2.3.1-54. Soil Water Storage and Cumulative Infiltration for Model 1

Source: SNL 2008a, Section 7.2.2[a], Figure 7.2.2-3a[a].

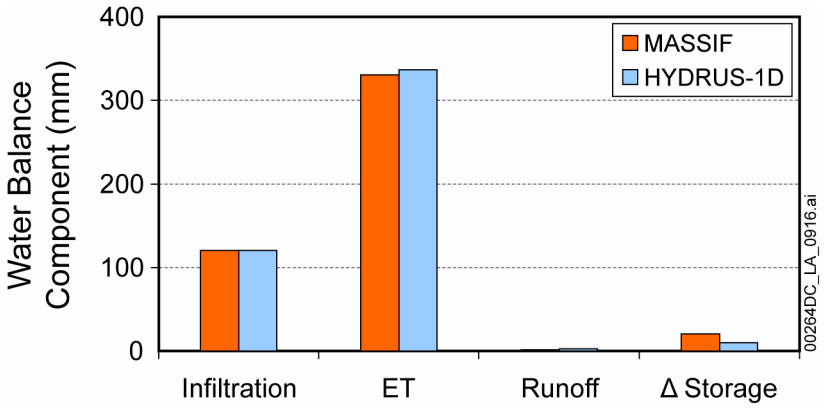

Figure 2.3.1-55. Annual Water Balance Components for Alternative Model Comparison

Source: SNL 2008a, Section 7.2.2[a], Figure 7.2.2-4a[a].