1. Compare results for the period 1994 to 2006

2. Update both models and compare the modeling results for the period from 2007 to 2016
Existing WLAM R4 Daily Streamflow

San Timoteo Creek Near Loma Linda

Model-Calculated Daily Streamflow, cfs

Measured Daily Streamflow, cfs

1994 to 2006

$R^2 = 0.72$

Good

2007 to 2016

$R^2 = 0.73$

Good
WLAM Update HSPF Daily Streamflow

San Timoteo Creek
Near Loma Linda

1994 to 2006

\[ R^2 = 0.97 \]

Very Good

2007 to 2016

\[ R^2 = 0.94 \]

Very Good
Existing WLAM R4 Monthly Streamflow

San Timoteo Creek
Near Loma Linda

1994 to 2006

R² = 0.84

Good

2007 to 2016

R² = 0.62

Poor
WLAM Update HSPF Monthly Streamflow

San Timoteo Creek Near Loma Linda

1994 to 2006

$R^2 = 0.99$

Very Good

2007 to 2016

$R^2 = 0.98$

Very Good
Existing WLAM R4 Daily Streamflow

Warm Creek Near San Bernardino

1994 to 2006

\[ R^2 = 0.62 \]

Fair

2007 to 2016

\[ R^2 = 0.50 \]

Poor
WLAM Update HSPF Daily Streamflow

Warm Creek Near San Bernardino

1994 to 2006

\[ R^2 = 0.71 \]

Model-Calculated Daily Streamflow, cfs

Measured Daily Streamflow, cfs

Good

2007 to 2016

\[ R^2 = 0.70 \]

Model-Calculated Daily Streamflow, cfs

Measured Daily Streamflow, cfs

Good
Existing WLAM R4 Monthly Streamflow

Warm Creek Near San Bernardino

1994 to 2006

\[ R^2 = 0.70 \]

Fair

2007 to 2016

\[ R^2 = 0.80 \]

Good
WLAM Update HSPF
Monthly Streamflow

Model-Calculated Monthly Streamflow, cfs

Measured Monthly Streamflow, cfs

1994 to 2006

R² = 0.79

Good

2007 to 2016

R² = 0.91

Very Good

Warm Creek
Near San Bernardino
Existing WLAM R4 Daily Streamflow

Model-Calculated Daily Streamflow, cfs

Measured Daily Streamflow, cfs

1994 to 2006

$R^2 = 0.72$

Good

SAR at E St.

2007 to 2016

$R^2 = 0.90$

Very Good
WLAM Update HSPF Daily Streamflow

SAR at E St.

1994 to 2006

\[ R^2 = 0.74 \]

Good

2007 to 2016

\[ R^2 = 0.95 \]

Very Good
Existing WLAM R4 Monthly Streamflow

Model-Calculated Monthly Streamflow, cfs
Measured Monthly Streamflow, cfs

1994 to 2006

R² = 0.93
Very Good

2007 to 2016

R² = 0.88
Very Good

SAR at E St.
WLAM Update HSPF Monthly Streamflow

Model-Calculated Monthly Streamflow, cfs

Measured Monthly Streamflow, cfs

R² = 0.89

Very Good

R² = 0.98

Very Good
Existing WLAM R4 Daily Streamflow

Model-Calculated Daily Streamflow, cfs

Measured Daily Streamflow, cfs

1994 to 2006

$R^2 = 0.68$

Fair

SAR at MWD Crossing

2007 to 2016

$R^2 = 0.93$

Very Good
WLAM Update HSPF Daily Streamflow

SAR at MWD Crossing

1994 to 2006

$R^2 = 0.73$

Good

2007 to 2016

$R^2 = 0.88$

Very Good
Existing WLAM R4 Monthly Streamflow

Model-Calculated Monthly Streamflow, cfs

Measured Monthly Streamflow, cfs

1994 to 2006

R² = 0.91

Very Good

2007 to 2016

R² = 0.96

Very Good

SAR at MWD Crossing
WLAM Update HSPF Monthly Streamflow

SAR at MWD Crossing

1994 to 2006

\[ R^2 = 0.86 \]

Very Good

2007 to 2016

\[ R^2 = 0.97 \]

Very Good

Model-Calculated Monthly Streamflow, cfs

Measured Monthly Streamflow, cfs
## Summary of Calibration Performance ($R^2$)

<table>
<thead>
<tr>
<th>Gaging Station</th>
<th>Freq. of Data</th>
<th>1994-2006</th>
<th></th>
<th>2007-2016</th>
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<tr>
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<td>R4</td>
<td>HSPF</td>
<td>R4</td>
<td>HSPF</td>
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<tr>
<td>San Timoteo Ck nr Loma Linda</td>
<td>Daily</td>
<td>Good</td>
<td>Very Good</td>
<td>Good</td>
<td>Very Good</td>
</tr>
<tr>
<td>Warm Ck nr San Bernardino</td>
<td>Daily</td>
<td>Fair</td>
<td>Good</td>
<td>Poor</td>
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