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MEMORANDUM

Date: April 17, 2013  
To: Regional Plan Implementation Committee  
From: TRPA Staff  
Subject: Performance Measures for the 2012 Regional Plan Update

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Project Description/Background: In accordance with action taken at the March 27, 2013 Regional Plan Implementation Committee meeting, two meetings of the appointed stakeholder advisory group were scheduled to review and refine staff-recommended RPU Performance Measures. Meetings are scheduled on April 16 and 18, 2013.

The attached staff summary with recommended performance measures was distributed to the stakeholder advisory group by e-mail on April 10, 2013.

Following the April 18 meeting, staff will distribute a new staff summary outlining recommendations of the stakeholder advisory group.

Contact Information: If you have any questions, please contact Arlo Stockham, Long Range Planning Manager, at [astockham@trpa.org](mailto:astockham@trpa.org) or 775.589.5236.

REGIONAL PLAN IMPLEMENTATION COMMITTEE



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MEMORANDUM

Date: April 16, 2013  
To: TRPA Stakeholder Advisory Group for Performance Measures  
From: TRPA Staff  
Subject: Recommended Performance Measures for the 2012 Regional Plan Update

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**Background:** On March 27, 2013, the Regional Plan Implementation Committee (RPIC) established a stakeholder advisory group to help develop Performance Measures for the 2012 Regional Plan Update.

**Members include:**

California Representative: Patty Kouyoumdjian, Executive Officer  
Lahontan Regional Water Quality Control Board

Nevada Representative: David Gaskin, Deputy Administrator  
Nevada Division of Environmental Protection

Local Government Representative: Brandy McMahon, Senior Planner  
Douglas County

Environmental Representative: Darcie Goodman-Collins, Executive Director  
League to Save Lake Tahoe

Business Representative: Lewis Feldman, Partner  
Feldman McLaughlin Thiel LLP

**Requested Action:** The stakeholder advisory group is scheduled to review staff recommendations at public meetings on April 16 and 18, 2013 and provide recommendations for the April 24, 2013 RPIC meeting.

**Summary:** Nine Regional Plan Update Performance Measures are recommended to assess the effectiveness of 2012 updates to the Lake Tahoe Regional Plan. The Performance Measures would monitor the anticipated effects of 2012 policy modifications, as outlined in the Environmental Impact Statement and other supporting information for the 2012 Regional Plan Update.

This approach involves the quantification of environmental objectives that were prioritized for accelerated progress during the 2012 Regional Plan Update. The recommended measures relate directly to the intended consequences of 2012 Regional Plan amendments and utilize information that is both available and measurable.

These Performance Measures serve a different purpose than TRPA's adopted Environmental Threshold Standards and the Threshold Evaluation process, which are required by the TRPA Compact and the Regional Plan and Code, and comprehensively assess the Region's progress towards full attainment of Environmental Threshold Standards.

Recommended Performance Measures for the 2012 Regional Plan Update include:

Regional Land Use Patterns:

1. Modify the distribution of development after 2012 compared to the distribution in 2012, as follows:
  - a. Increase the percent of development located within Centers
  - b. Decrease the percent of auto-dependent development (located more than ¼ mile from Centers and not at a ski area with transit services)
  - c. Remaining areas are neutral (less than ¼ mile from a Center and not at a ski area with transit services).
2. Increase the annual average number of units transferred to Centers from sensitive and remote land compared to the annual average prior to 2012 Regional Plan amendments.

Travel Behavior

3. Increase in percentage of all trips using non-automobile modes of travel (transit, bicycle, pedestrian).
4. Decrease in automobile vehicle miles travelled per capita (excluding through-trips).

Environmental Restoration

5. Accelerate privately-funded coverage removal from Stream Environment Zones and other Sensitive Lands.
6. Accelerate issuance of BMP Certificates in conjunction with property improvements.
7. Achieve TMDL performance benchmarks.
8. Accelerate Scenic Threshold attainment on urban roadways.

Effective Regional Plan Implementation

9. Prepare and maintain Area Plans in conformance with the 2012 Regional Plan.

In some cases, the recommended Performance Measures utilize Threshold Standards as the measurement tool. This approach works well for topics where the environmental gains resulting from policy changes can be quantified with reasonable certainty. Examples include scenic threshold attainment rates along urban roadways and coverage removal rates from sensitive lands.

In other cases, the recommended Performance Measures utilize information that more directly relates to the intended result of 2012 Regional Plan amendments. This approach works well for broader planning strategies to achieve environmental improvement in multiple inter-related threshold categories. For example, transitioning to a more compact land use pattern is proposed as a Performance Measure that would positively influence air quality, noise, water quality and other threshold categories. This approach also works well for situations when factors outside TRPA's control significantly influence progress toward threshold standards and the factors outside of TRPA control need to be isolated, such

as through trips influencing total vehicle miles travelled. Using these “proxy” measures for environmental improvement better identifies the effectiveness of approved policy changes rather than measuring environmental progress that is influenced by many different factors.

For each Performance Measure, “baseline” statistics are identified based on existing conditions or the historic rate of progress under the 1987 Regional Plan, whichever is most applicable for that topic. The “Benchmark” for each Performance Measure should involve an improved rate of progress towards the identified goals compared to the rate of progress prior to the 2012 amendments.

Determining how much progress should be expected for each Performance Measure over the first four years is very difficult to estimate for many reasons, including the following:

- A “lag time” is expected between the adoption of policy changes and any resulting activities “on the ground”. Considerable pre-application work is required for many of the projects that are encouraged by the 2012 Regional Plan. It often takes many years for a project to progress from a plan to actual construction and more time still for the effects of the change to become measurably apparent. As a result, positive progress should be expected to be delayed for a year or two, then start slowly and accelerate over time.
- Pending litigation is likely to further delay implementing actions. With active litigation, many property owners are unwilling to invest in projects under the new Regional Plan. If litigation becomes protracted, positive progress may not be realized at all during the first four-year period.
- The expected environmental improvements will depend on private investment in the Region. Presently, it is very difficult to obtain financing for projects at Lake Tahoe because of the poor rate of success for projects that have been proposed. The recession has exacerbated this problem. The transition to a more normal lending environment is predicted by those who study these trends to be gradual. This transition is also negatively influenced by litigation.

For these reasons, staff recommends a two-tier Benchmark system for each performance measure.

The first Benchmark component would be to have an improved rate of progress towards the identified goal compared to the pre-2012 baseline. Meeting these “Level-1 Benchmarks” would suggest that the 2012 amendments have had a positive effect on the Region’s progress toward threshold attainment. Not meeting the Level-1 Benchmarks would indicate negative progress and call for additional research to determine the causes for negative progress and potential corrective actions.

The second Benchmark component would involve a goal or target for how much progress the Region hopes to make over the next four years. Because many factors that TRPA has no control over will influence the rate of progress, it is very important that these Level-2 Benchmarks be treated as goals, not requirements. The suggested Level-2 Benchmark targets are speculative and necessarily imprecise and may not be met due to factors unrelated to the Regional Plan, but they provide an aspirational measure of improvement to strive towards. For the reasons outlined above, staff recommends Level-2 Benchmarks that are modest but significant. More aggressive Level-2 Benchmarks are identified for the Performance Measures that are expected to have a faster response time.

These Performance Measures and Benchmarks address the first four years following adoption of the 2012 Regional Plan (2013-16). Following initial approval, the RPU Performance Measures and progress towards the identified Benchmarks should be reviewed as part of TRPA’s annual priority setting process and modifications to the measures should be considered as new information becomes available and

additional plan amendments are approved. The Performance Measures and Benchmarks should also be comprehensively reviewed (and revised as appropriate) during the next 4-year update to the Regional Plan.

Analysis:

The 2011 Threshold Evaluation documented attainment of many Threshold Standards and significant progress towards attainment of others. The Threshold Evaluation also identified a need to accelerate progress towards several of the more challenging Threshold Standards. Priorities for accelerated progress include:

- Improve Lake Tahoe’s Water Quality in coordination with the TMDL;
- Accelerate restoration of Stream Environment Zones (SEZ) and other Sensitive Lands;
- Reduce auto dependence, air pollution and noise; and
- Improve scenic conditions in developed areas.

Overall, the 2012 Regional Plan maintained many of TRPA’s programs that have contributed to the environmental gains that have been made, including the regional growth control system, strict environmental standards and established inter-agency partnerships.

The 2012 Regional Plan Update also included targeted amendments to better address the identified priorities for accelerated progress. At a high level, these amendments sought to:

- Improve regional land use patterns by encouraging redevelopment within community centers and incentivizing the transfer of development away from sensitive lands and remote areas;
- Reduce automobile dependency and promote alternative transportation options;
- Accelerate private investment in sensitive land restoration; and
- Focus TRPA on regional priorities, while improving the permitting system.

Specific amendments are summarized in more detail in Exhibit A.

The anticipated effects of approved Plan amendments and recommended Performance Measures for each topic are summarized below in four categories:

1. Regional Land Use Pattern
2. Travel Behavior
3. Environmental Restoration
4. Effective Regional Plan Implementation

Exhibit B provides additional information regarding baseline conditions, methodology, and the tracking system for each Performance Measure.

Regional Land Use Pattern: The 2012 Regional Plan is expected to modify regional land use patterns by reforming regulatory barriers for redevelopment within community centers and incentivizing the transfer of development away from sensitive lands and remote areas.

A more compact land use pattern with reduced development in outlying areas is an important strategy to reduce automobile reliance and encourage walking, biking and transit use. These changes would directly benefit air quality and noise thresholds and indirectly benefit water quality through reduced atmospheric deposition.

Concurrently, incentives for redevelopment in centers and development transfers from sensitive lands are expected to directly benefit water quality, soils (coverage), vegetation, and scenic thresholds.

Related benefits for other threshold categories are also expected, including recreation, wildlife and fisheries.

Two Performance Measures are recommended to monitor changes to Regional Land Use Patterns.

1. Modify the distribution of development after 2012 compared to the distribution in 2012, as follows:
  - a. Increase the percent of development located within Centers
  - b. Decrease the percent of auto-dependent development (located more than ¼ mile from Centers and not at a ski area with transit services)
  - c. Remaining areas are neutral (less than ¼ mile from a Center and not at a ski area with transit services).

The distribution of development would be monitored in four categories - residential units, CFA, TAUs and total property value. The current distribution of development is estimated on the following table and would serve as the “Level-1 Benchmark”. Please note that these baseline estimates are being double-checked for accuracy and may be refined prior to approval.

<b>Existing Distribution of Development – Level 1 Benchmark</b>				
Land Use Type	Regional Total	% within Center (Encouraged)	% in Auto-Dependent Locations (Discouraged)	% in Other Areas (Neutral)
Residential Units	47,391	3.84%	67.66%	28.50%
CFA (sf)	5,551,693	63.13%	26.32%	10.55%
Tourist Units	11,947	83.37%	10.44%	6.19%
Total Property Value	\$17,276,576,045	8.23%	73.42%	18.36%

The 4-year Level-2 Benchmark Goal for this Performance Measure is recommended to be a 0.4% increase in the percent of Residential Units located within Centers, a 2% increase in the percent of total value located in Centers and a 0.1% increase in the percent of CFA and Tourist Units Located within Centers; with corresponding decreases in Auto-dependent locations (see the table below). More aggressive goals are recommended for residential uses than for non-residential uses because the residential development pattern is significantly further from the desired conditions and there is greater potential for improvement. The majority of Tourist Units and Commercial space is already located in Centers. The Level-2 Benchmark for total property value reflects a combination of residential and non-residential goals.

<b>4-Year Level 2 Benchmark Goal</b>		
Land Use Type	% within Center (Encouraged)	% in Auto-Dependent Locations (Discouraged)
Residential Units	4.24% or more	67.26% or less
CFA (sf)	63.23% or more	26.22% or less
Tourist Units	83.47% or more	10.34% or less
Total Property Value	8.43% or more	73.22% or less

2. Increase the annual average number of units transferred to Centers from sensitive and remote land compared to the annual average prior to 2012 Regional Plan amendments, as follows:
  - a. Increase transfers from SEZ Lands (Class 1b) to Centers.
  - b. Increase transfers from other sensitive lands (Classes 1a, 1c, 2 and 3) to Centers.
  - c. Increase transfers from remote property (greater than ¼ mile from Centers) to Centers.

Transfers of development would be monitored in four categories - residential units, CFA, TAUs and development rights. Historic annual average transfer rates would serve as the baseline and are estimated in the table below.

Please note that the development transfers have not been fully tracked in the past, in part due to keeping only individual hardcopy development application files. The following baseline statistics are based on transfers between 2008 and 2012. Because this was a time of unusually low development activity, additional research is being completed to extend the baseline timeframe to 2002. These baseline estimates are expected to be refined prior to approval based on additional research. Staff is aware of transfers to Centers during the 2002-2007 period, so the baseline will be greater than zero once the necessary statistics are compiled.

<b>Average Annual Development Transfer Rates 2008 to 2012 – Level 1 Benchmark</b>			
Land Use Type	Transfers from SEZ to Centers	Transfers from other Sensitive Lands to Centers	Transfers from Remote Areas to Centers
Residential Units	0	0	0
CFA (sf)	49*	0	49*
Tourist Units	0	0	0
Residential Development Rights	0	0	0
*CFA transfer for 247 sq. ft. in 2008. This transfer was from a parcel that is both SEZ and Remote, and is therefore included in both columns.			

The 4-year Level-2 Benchmark Goal for this Performance Measure is recommended to be a 10% increase in the transfer rate for all use types, compared to the transfer rate between 2002 and 2012. The numeric target for each use type will be established after a more representative baseline trend is identified.

**Travel Behavior:** The 2012 Regional Plan is expected to promote travel behavior that is less environmentally impactful than existing travel behavior. Travel behavior is directly impacted by land use patterns, as well as the Region’s transportation infrastructure investment priorities.



A more compact land use pattern with reduced development in outlying areas is expected to reduce automobile reliance and encourage walking, biking and transit use. These changes would directly benefit air quality and noise thresholds and indirectly benefit water quality through reduced atmospheric deposition. Complementary policy changes to promote pedestrian, bicycle, and public transportation improvements would further support the expected environmental benefits.

Two Performance Measures (#3 and #4) are recommended to monitor changes to travel behavior.

3. Increase in percentage of all trips using non-automobile mode of travel (transit, bicycle, pedestrian).

The existing modal split would serve as the Level-1 Benchmark and is estimated on the following table:

<b>Travel Mode Baseline and Level-1 Benchmark</b>			
	<b>Winter Percentage of Trips by Mode</b>	<b>Summer Percentage of Trips by Mode</b>	<b>Level-1 Benchmark: Average Percentage of Trips by Mode</b>
Auto, Truck, Motorcycle, etc	79.0%	82.85%	80.93% (reduce)
Walk	11.7%	9.8%	10.75%
Bike	2.4%	6.0%	4.2%
Transit	6.9 %	1.35%	4.13%
<b>Total Non-Auto Mode Share</b>	<b>21.0%</b>	<b>17.15%</b>	<b>19.07% (should increase)</b>

The 4-year Level-2 Benchmark Goal for this Performance Measure is recommended to be a 0.25% increase in the total non-auto mode share: 19.32% or greater.

4. Decrease in automobile vehicle miles travelled (VMT) per capita (excluding through-trips).

Existing Per-Capita VMT (excluding through trips) would serve as the Level-1 Benchmark and is estimated to average 33.7 miles per day. The Level-2 Benchmark would be 33.4 miles per day or less - a 1% improvement over current conditions.

Environmental Restoration: The 2012 Regional Plan is expected to accelerate environmental restoration with increased private investment. This will complement publically-funded restoration projects.

Since adoption of the 1987 Regional Plan, private investment in all sectors other than single family housing has been very limited. As a result, code provisions that require environmental improvement with development projects have not produced the expected rate of environmental gain. Environmental improvements are occurring, but sometimes at a rate that will not achieve adopted Threshold Standards for many decades, or even centuries. Public funding has not been available to invest in private property or private projects to achieve the restoration benefits that private activities were expected to provide.

The policy amendments approved in 2012 target environmental improvements that are significantly influenced by private investment. Facilitating environmental redevelopment and establishing development transfer incentives are key strategies to accelerate environmental gain. These changes would directly benefit water quality, soil conservation, air quality, vegetation, noise and scenic thresholds. Wildlife, fisheries and recreation thresholds would be indirectly benefited.

Four Performance Measures (#5-#8) are recommended to monitor environmental restoration progress and complement the above-described Performance Measures.

5. Accelerate privately funded coverage removal from Stream Environment Zones (Class 1b) and Other Sensitive Lands (Classes 1a, 1c, 2 and 3).

Coverage removal from sensitive lands is accomplished through three basic mechanisms:

- Public investments to acquire and/or restore disturbed lands;
- Coverage transfer activities, which are generally associated with private development activities; and
- Excess coverage mitigation requirements, which require coverage removal or in-kind fees when over-covered properties propose property improvements. Historically, approved projects have utilized the option of paying mitigation fees rather than the option to directly remove coverage.

The first coverage removal mechanism is dependent on public investment priorities and is not directly influenced by TRPA regulations. For that reason, it is not proposed to be reflected in the RPU Performance Measure.

The second and third coverage removal mechanisms are both directly influenced by the level of private investment and are proposed to be included in this Performance Measure. Regional Plan amendments that promote increased redevelopment and transfer activity should result in measurable coverage removal gains.

Average annual coverage removal rates from SEZ Lands (excluding public acquisitions), average annual coverage removal rates from other Sensitive Lands (excluding public acquisitions), and excess coverage mitigation fee collections between 2008 and 2012 are noted below. Research is ongoing to extend the timeframe for the baseline analysis to 2002 to be more inclusive of a range market conditions. The statistics below, as refined, would serve as the baseline and Level-1 Benchmark:

Annual average coverage removal rate from SEZ Lands (excluding public acquisitions):	0.13 acres per year
Annual average coverage removal rates from other Sensitive Lands (excluding public acquisitions):	0.04 acres per year
Annual average excess coverage mitigation fee collections:	\$251,778

The Level-2 Benchmark goal is recommended to be a 20% increase in coverage removal rates and a 5% increase in mitigation fee collections.

6. Accelerate issuance of BMP Certificates in conjunction with property improvements.

Issuance of BMP Certificates is achieved through three mechanisms:

- Voluntary BMP Installation;
- Issuance of BMP Certificates as a requirement for property improvement (new construction, redevelopment, additions, remodels, etc); and
- Issuance of BMP Certificates as a result of enforcement actions.

Regional Plan policy amendments seek to accelerate the issuance of BMP Certificates through accelerated property improvement rates (mechanism #2). Many incentives are provided to encourage private property improvements. Because BMP Certificates are required with all construction permits, accelerated property improvement rates are expected also to result in improved BMP compliance rates without increasing enforcement costs.

Mechanisms #1 and #3 are not directly influenced by updated Regional Plan policies and are not included in the recommended Performance Measure.

BMP Certificates that have been issued as a condition of permitting activities have been tracked since 2008. The average annual BMP certification rate from permitting, measured as a percentage of outstanding BMP Certificates, would serve as the Level-1 Benchmark and is estimated to average 1.0 percent of outstanding certificates each year. A longer baseline period would be ideal, but the necessary data are not available and the overall BMP installation rates have been fairly consistent since 2001.

The Level-2 Benchmark goal is recommended to be a 25% increase (1.25% of outstanding certificates annually).

#### 7. Achieve TMDL performance benchmarks

While TMDL performance benchmarks are not directly impacted by Regional Plan Policy amendments nor are they directly a part of the TRPA regulatory system, they are a critical component of the threshold attainment plan for water quality. The load reduction targets are also required to be utilized in the conformance review of Area Plans.

To reflect the importance of the TMDL, staff recommends that the 5-year load reduction requirements for each jurisdiction also be tracked as a RPU Performance Measure for informational purposes. The specific requirements would continue to be established by each local government and approved by Nevada and California. The benchmarks for this performance measure would be adopted by reference from the applicable NPDES permits and MOAs. Current 5-year load reduction targets are summarized in Exhibit B. For this performance measure, there is no distinction between Level-1 and Level-2 Benchmarks.

#### 8. Accelerate Scenic Threshold attainment on urban roadways

Scenic conditions in the Region's undeveloped areas generally comply with adopted Threshold Standards, but scenic quality in developed areas – especially community centers – does not. The Regional Plan requires scenic improvement with development projects, but the slow rate of redevelopment has resulted in a correspondingly slow rate of scenic improvement.

The 2012 Regional Plan amendments seek to accelerate redevelopment activity, which is expected to similarly accelerate attainment of Scenic Threshold Standards in Centers. Plan amendments are focused on Centers, so the Performance Measure is recommended also to focus on these areas (categorized as “urban roadway units”). Other roadway scenic units are more directly influenced by public land management activities than development activities. Similarly, shoreline scenic units are influenced primarily by lakefront development, which is not expected to change significantly as a result of 2012 Plan amendments.

Existing urban scenic roadway units have been in place since 2001. The average annual attainment rate for urban roadway units since 2001 would serve as the Level-1 Benchmark and has been 1.0 percent of non-attaining units per year. The Level-2 Benchmark Goal would be a 20% increase. Because none of the non-attaining units are close to attainment at this time, the improvement trend is expected to be incremental – there may not be any additional attaining units even if improvements are made.

Effective Regional Plan Implementation: The 2012 Regional Plan seeks to accelerate threshold attainment in all categories by incrementally updating and replacing existing land use plans (Plan Area Statements and Community Plans) with new Area Plans. Many of the existing plans are over 20 years old and have not been updated to reflect contemporary conditions and new science. Area Plans are required to utilize TMDL Load Reduction Plans, comply with Chapter 4 “threshold findings”, and address other Regional Plan requirements.

The following performance measure is recommended to monitor the Region’s progress in updating the existing land use plans and maintaining the new Area Plans in conformance with the Regional Plan.

9. Prepare and maintain Area Plans in conformance with the 2012 Regional Plan

Area Plans are new, so there is no baseline against which to compare progress. The performance measure would track:

- Acres included in Conforming Area Plans each year – the Level-1 Benchmark should be to add some acreage. The Level-2 Benchmark Goal would be to include 20% of the Region in an Area Plan over 4 years.
- % of Area Plans recertified annually – the Level 1 and Level 2 Benchmark should be 100% in order to maintain full compliance with the Regional Plan.

Contact Information: If you have any questions, please contact Arlo Stockham, Long Range Planning Manager, at 775.589.5236.

## Exhibit A

### Summary of December 12, 2012 TRPA Code Amendments

**\*Note:** Code sections highlighted below may not be implemented until approval and adoption of the 208 Water Quality Management Plan by the U.S. EPA.

Code Section	Section Topic	Description
<b>General Provisions: Chapters 1-6</b>		
2.2.2	Governing Board Review	· The Governing Board must approve Area Plans and Project Appeals within Area Plans
2.2.5	Certified Contractor Program	· Reserved Section for certified contractor provisions (to be developed)
5.11	Applications	· Amendment to allow scanned/faxed signatures
6.5.8	Data for Account Files	· Amendment to identify the applicable Area Plan in account files
<b>Planning: Chapters 10-16</b>		
10.3.2	Official TRPA Maps	· Makes Plan Area Overlay Maps applicable to Area Plans
11.6.2	Land Use Classifications (Applies to Maps)	· Changes <i>Commercial and Public Service</i> designation to <i>Mixed-Use</i> · Recognizes <i>Wilderness</i> and <i>Backcountry</i> designations on Federal Lands · Establishes <i>Resort Recreation</i> designation for two sites
11.6.3	Special Designations (Applies to Maps)	· Eliminates <i>Redevelopment Areas</i> · Establishes Overlay designations for <i>Town Centers</i> , the <i>Regional Center</i> , the <i>High Density Tourist District</i> and <i>Stream Restoration Plan Areas</i> .
11.8.4.C	Addition of Multi Family Uses	· When establishing Multi Family as a permissible use, re-defines certain distance requirements from “a <i>ten-minute walk</i> ” to “ <i>1/2 mile</i> ”
Deleted old Chap 13	Redevelopment Plans	· Deletes old Chapter 13 (Redevelopment Plans) and establishes new Area Plan provisions
13.1	Area Plans – Purpose	· Defines the purpose for Area Plans
13.2	Area Plans – Applicability	· Authorizes Local, State, Federal and Tribal Governments to prepare Area Plans
13.3	Area Plans – Relationship to Existing Regulations	· Requires that Area Plans be part of the Regional Plan, subject to the same requirements and relationship to the Compact · Establishes that TRPA Code provisions apply, except as modified by a Conforming Area Plan.

Code Section	Section Topic	Description
13.4	Development of Area Plan	<ul style="list-style-type: none"> <li>· Makes development of Area Plan optional</li> <li>· Requests eligible governments to provide Statements of Intent regarding Area Plan preparation by December 31, 2013 for consideration in 2014 TRPA work program</li> </ul>
13.5	Content of Area Plans	<ul style="list-style-type: none"> <li>· Minimum Development Standards (Height, Density, Coverage, Complete Streets)</li> <li>· Alternative Development Standards Authorized in Area Plans (Comprehensive Coverage, Alternative Parking, Area Wide Water Quality Treatments, Alternative Transfer Ratios for Stream Restoration Priority Areas)</li> <li>· Development Standards Encouraged in Area Plans (Urban Bear Strategy, Urban Forestry Strategies)</li> <li>· Community Design Standards (Site Design, Building Height, Building Design, Landscaping, Lighting, Signing, Modification to Center Boundaries, Development on Resort Recreation Parcels)</li> </ul>
13.6	Conformity Review Procedures for Area Plans	<ul style="list-style-type: none"> <li>· Requires sequential approval by Lead Agency then TRPA</li> <li>· Lists Conformance Findings and Additional Review Standards</li> </ul>
13.7	Procedures for MOU	<ul style="list-style-type: none"> <li>· Content of MOU</li> <li>· Limits on delegated permitting</li> <li>· MOU Review Process</li> </ul>
13.8	Monitoring, Certification and Enforcement of Area Plans	<ul style="list-style-type: none"> <li>· Establishes provisions to maintain and enforce compliance with the Regional Plan, including future amendments</li> </ul>
13.9	Area Plan Appeals	<ul style="list-style-type: none"> <li>· Establishes Appeal provisions for delegated Projects.</li> </ul>
<b>Land Uses: Chapters 20-23</b>		
21.5.2	Non-Conforming Uses	<ul style="list-style-type: none"> <li>· Area Plans and MOUs may address the modification of non-conforming uses (vs direct TRPA review). Approval standards remain unchanged.</li> </ul>
<b>Site Development: Chapters 30-39</b>		
30.3.3	Land Capability Verifications	<ul style="list-style-type: none"> <li>· Authorizes certified contractor program (program to be developed)</li> </ul>
30.4.2	Transferred Land Coverage Requirements	<ul style="list-style-type: none"> <li>· Modifies total allowable coverage limits in Centers and Community Plan Areas, as follows:</li> <li>· 50% of high capability within 300 feet of Tahoe (reduced for some situations)</li> </ul>

Code Section	Section Topic	Description
		<ul style="list-style-type: none"> <li>70% of high capability in Centers further than 300 feet from Tahoe (increased for some situations)</li> <li>Existing 50%/70% maintained in Community Plan areas further than 300 feet from Tahoe</li> <li>Allows non-conforming Coverage to be transferred to high capability land in centers, with limitations</li> </ul>
30.4.3	Method of Transferring Land Coverage	<ul style="list-style-type: none"> <li>Makes minor modifications to existing coverage transfer provisions, as follows:</li> <li>1:1 from sensitive lands and for preferred uses, which now include Multi Family</li> <li>Sliding scale of coverage reduction maintained for other transfers</li> <li>Soft Coverage in SEZs may be restored and transferred to hard coverage in Centers.</li> <li>Note that HRA restriction remains for coverage transfers</li> </ul>
30.4.6	Coverage Credits and Exemptions	<ul style="list-style-type: none"> <li>Temporary Structures (up to 120 sf)</li> <li>ADA compliance facilities (minimum required)</li> <li>Pervious Coverage (25% credit)</li> <li>Pervious decks (sliding scale up to 750 sf or 5%)</li> <li>Non-motorized public trails (location and design standards)</li> <li>Qualifying standards (BMPs, etc) and aggregate limits apply</li> </ul>
30.6.1	Excess Coverage Mitigation	<ul style="list-style-type: none"> <li>Coverage mitigation permitted across HRA boundaries on more sensitive lands</li> <li>Mitigation fees may be used across HRAs</li> </ul>
30.6.3	Excess Coverage Removal	<ul style="list-style-type: none"> <li>Bonus Units earned for additional coverage removal (after required mitigation)</li> <li>Sliding scale based on Land Capability</li> </ul>
31.5.2	Maximum Density for Mixed Uses	<ul style="list-style-type: none"> <li>Applies multi-family density provisions to mixed-use subdivisions</li> </ul>
32.4.2	Water Supply	<ul style="list-style-type: none"> <li>Fire agencies to determine minimum water flow</li> <li>TRPA fire flow standards deleted</li> </ul>
34.3.4	Width of Driveways	<ul style="list-style-type: none"> <li>TRPA standard for single family driveways deleted (local and fire standards apply)</li> </ul>
36.5.5	Bicycle and Pedestrian Facility Maintenance	<ul style="list-style-type: none"> <li>Facility maintenance plans required bicycle and pedestrian improvements</li> </ul>
37.4.1	Maximum Height for Buildings	<ul style="list-style-type: none"> <li>Existing Height Table remains applicable outside Centers</li> </ul>

Code Section	Section Topic	Description
37.4.2	Maximum Height for Buildings on Slopes	· Established “stepped building” allowances for sloped sites
37.5.2.F	Additional Height for Public Service Buildings	· Permits up to 14 feet of additional height for essential public safety buildings
37.7.16 & 17	Findings for Additional Building Height	· Requires new findings for additional height in Centers
<b>Growth Management: Chapters 50-53</b>		
50.4	Allocation of Commodities (2013-2032)	<ul style="list-style-type: none"> <li>· 2,600 new residential allocations</li> <li>· 600 new multi-family bonus units for Centers only</li> <li>· 200,000 sf new CFA: only released if existing supply is used</li> <li>· No new tourist units</li> <li>· Development released in 20% increments every 4 years only if VMT and LOS standards are not projected to be exceeded</li> </ul>
50.5	Residential Allocations	<ul style="list-style-type: none"> <li>· Up to 130 allocations released in 2013 (Reduced from 294/year)</li> <li>· Performance system maintained w/ proportional reductions and reporting aligned with TMDL</li> <li>· Performance System to be revisited before 2014</li> </ul>
50.6	Allocation of CFA	<ul style="list-style-type: none"> <li>· Relocation of existing accessory commercial uses to ground level is permitted (50.6.1.A)</li> <li>· No new distribution of CFA in 2013 (50.6.4.E)</li> </ul>
50.10.2	Conversion to Multi Family Units	· New Program for on-site conversion of up to 200 TAUs to ERUs up to 1,250 sf
51.3.3	Transfer of Development Rights to Centers	· Establishes a sliding scale transfer ratio (up to 2.25:1) for transfers of development rights to Centers and sensitive land retirement
51.5.2	TAU Transfer Limitations	· Establishes new size limits (850-1,800 sf) and facility management requirements for TAU transfers
51.5.3	Transfer of Existing Development to Centers	· Establishes a sliding scale transfer ratio (up to 6:1) for transfers of existing development to Centers, with sensitive land restoration and retirement
52.2	Bonus Unit Applicability	· Authorizes Bonus Units for transfers to Centers and excess coverage removal
52.3.1	Assignment of Multi Residential	· Authorizes 600 new bonus units for use only in Centers



Code Section	Section Topic	Description
	Bonus Units	
<b>Resource Management and Protection: Chapters 60-68</b>		
60.1.3.C.4	Use of Treated Effluent	· Treated effluent may be used more widely for catastrophic fire protection
60.1.5	Deicer and Abrasive Control	· Deicer reporting requirements aligned with State (TMDL) reporting.
60.4.6	BMP Requirements	· BMPs must comply with defensible space requirements
60.4.8.B	BMPs in Special Circumstances	· Aligned with TMDL – shared facilities permitted consistent with load reduction requirements
61.1.4.A.7	Tree Removal	· Necessary tree removal is permitted for EIP projects without requiring an approved TRPA Master Plan
61.1.7.D	Fire Hazard Tree Removal	· Permits limited tree limbing for fire protection
62.4.1.A	Goshawk disturbance zones	· Redefines disturbance zones to be 500 acres of best suitable habitat, including ¼ mile radius
65.1.4.B.3	Wood Heater Retrofit Program	· Woodstove Disclosure not required for internal transfers or 1993 or newer stoves
65.1.6	Biofuel Facilities	· Applications not accepted for biofuel facilities pending further research
65.1.8	Idling Restrictions	· Establishes a Pilot Program for drive up pharmacy windows in South Lake Tahoe
65.2.3.F	Air Quality Mitigation	· Time criteria to be considered a previous use (and not subject to new fees) are extended from 90 consecutive days in 24 to 90 consecutive days in 60 months.
65.2.6	Use of AQ Mitigation Fees	· A portion of the mitigation fund may be used across jurisdiction boundaries for regional priorities – through EIP or similar program.
65.3	Bicycle and Pedestrian Facilities	· Establishes new requirements for sidewalk and trail easements on certain development sites
<b>Shorezone: Chapters 80-86</b>		
No Amendments		
<b>Definitions: Chapter 90</b>		
Chapter 90	Definitions	· Additional terms are defined consistent with earlier-referenced amendments
Note: This list is an overview of substantive regulatory changes. It does not include unchanged regulations or explain amendment details. Minor code edits (clarification of terms, cross references, etc) are not included in this summary.		

## Exhibit B

### Baseline Data for Performance Measures

Data sources and methodology for each of the nine recommended Performance Measures are outlined below:

1. Modify the distribution of development after 2012 compared to the distribution in 2012

This measure seeks to:

- a. Increase the percent of development located within Centers
- b. Decrease the percent of auto-dependent development (located more than ¼ mile from Centers and not at a ski area with transit services)
- c. Remaining areas are neutral (less than ¼ mile from a Center and not at a ski area with transit services).

The existing distribution of development is estimated in two ways: units of use (Residential Units, Tourist Units and CFA) and total market valuation. Changes to the distribution of development would be tracked in the same categories.

The data used to calculate residential units, TAUs and CFA was compiled from TRPA's GIS layers. The layers used were Assessor's Parcel Data, 2011 LiDAR analysis, and the location of centers layer. The 2012 Assessor's data has not been processed completely so at this time data from 2010 was used. To obtain the TAU and Residential units, the 'units' field was summed up for each classification. LiDAR was then used and all building footprints were calculated in square feet. This square footage was assign to each APN. The "Commercial" parcel's area of the buildings was then calculated to get a best estimate of CFA.

The data was then broken up into zones to get the geographic distribution. The three categories are Centers, Land within ¼ mile of the Centers, and land outside of the quarter mile buffer. Ski Areas that have transit service (Homewood Ski Area and Heavenly Mountain Resort) were also included into the neutral areas since they are not automobile dependent like outlying single family areas are. The current distribution of units of use is outlined on the table below:

<u>Land Use</u>	<u>Units</u>	<u>CFA</u>	<u>Percent of Total</u>
<b>Commercial</b>		5,551,693 Total	
Centers		3,504,995	63.13%
neutral		585,708	10.55%
outside		1,460,990	26.32%
<b>Residential</b>	<b>47,391 Total</b>		
Centers	1,821		3.84%
neutral	13,505		28.50%
outside	32,065		67.66%
<b>Tourist</b>	<b>11,947 Total</b>		
Centers	9,960		83.37%
neutral	740		6.19%
outside	1,247		10.44%

The market value data was obtained from County Assessor offices for this assessment. It was then evaluated in the same way as the CFA, Residential Units and TAU's were.

<b>Total Property Value by Location</b>		
<b>Location</b>	<b>Total Value</b>	<b>Percentage</b>
Centers	\$1,421,345,055	8.23%
Neutral	\$3,171,529,688	18.36%
Outside	\$12,683,701,302	73.42%
<b>Total Market Value</b>	<b>\$17,276,576,045</b>	<b>100.00%</b>

TRPA's review of the data is ongoing and baseline data refinements may be proposed prior to approval if discrepancies are found.

In the future, TRPA will continue to track unit of use information in a GIS system. The system will be updated over time to better account for CFA in the Region and to include updated County assessor data.

2. Increase the annual average number of units transferred to Centers from sensitive and remote land compared to the annual average prior to 2012 Regional Plan amendments.

The data for unit transfers was obtained by querying records from TRPA's permit tracking system (Accela), and conducting physical file research to fill in missing data. The Accela query was for all transfer applications submitted each year. The list was then sorted to show only transfers that were applications to TRPA and had been finalized.

All remaining records were then physically searched to determine the quantity of coverage or units being transferred, the sending and receiving parcels for each transfer, and the land capability or IPES score of the sending parcels to determine which were transfers from SEZ or sensitive parcels.

For the unit transfers, TRPA’s GIS system was used to determine which of the receiving parcels were in Centers, and of those, which had sending parcels that were “Remote”. The following table depicts the annual average transfer rate from 2008-12:

<b>Average Annual Development Transfer Rates 2008 to 2012 – Level 1 Benchmark</b>			
Land Use Type	Transfers from SEZ to Centers	Transfers from other Sensitive Lands to Centers	Transfers from Remote Areas to Centers
Residential Units	0	0	0
CFA (sf)	49*	0	49*
Tourist Units	0	0	0
Residential Development Rights	0	0	0
*CFA transfer for 247 sq. ft. in 2008. This transfer was from a parcel that is both SEZ and Remote, and is therefore included in both columns.			

Because the physical file search is time intensive, the baseline data only extends to 2008. Additional work will be completed to identify baseline trends since 2002 to be more reflective of the normal range of market conditions. Staff is aware of transfers to Centers during the 2002-07 period and expects a higher baseline with the longer review period – no residences, tourist units of development rights were transferred to centers since 2008.

3. Increase in percentage of all trips using non-automobile modes of travel (transit, bicycle, pedestrian).

Non-auto mode share is a measure which captures the percentage of people using bicycling, walking, transit, and other non-auto modes to make daily trips. It measures the degree to which land-use patterns and policy and funding decisions at Lake Tahoe influence residents and visitors to use non-auto modes for travel. Non-auto mode share at Lake Tahoe is measured by intercept survey at commercial and recreation sites in the wintertime and summertime. This performance measure has been evaluated since 2006. The baseline of total non-auto mode share is considered to be the latest data set. Total non-auto mode share includes the Public Transit, Bike, and Walk categories shown in the tables below.

A detailed monitoring protocol is maintained by TRPA. Non-Auto Mode Share is reported every two years in the Tahoe Metropolitan Planning Organization’s *Transportation Monitoring Program Report*.

**Baseline Winter Non-Auto Mode Share: 21.0%**

Mode Share to Commercial and Recreation Areas	WINTER <sup>1</sup>	
	2008	2012
Primary Mode to Location		
Car/Truck/Van	78.5%	78.8%
Motorcycle/Moped	0%	0%
Public Transit/Paratransit/Casino Shuttle/Private Shuttle/School Bus <sup>2</sup>	8.3%	6.9%
Bike	0.5%	2.4%
Walk	12.3%	11.7%
Other	0.4%	0.2%
Don't know/refuse	0%	0%

Source:

Tahoe Regional Planning Agency, 2008 Winter Travel Mode Share Survey, raw data set

Tahoe Regional Planning Agency, 2012 Travel Winter Mode Share Survey, raw data set

Notes:

- (1) Totals do not always equal 100% due to rounding
- (2) Ferry is not included, because there was no public ferry service in winter of 2008 or 2012.

**Baseline Summer Non-Auto Mode Share: 17.15%**

Mode Share to Commercial and Recreation Areas	SUMMER	
	2006	2010
Primary Mode to Location		
Car/Truck/Van	81%	79.4%
Motorcycle/Moped	0.9%	2.2%
Public Transit/Paratransit/Casino Shuttle/Private Shuttle/School Bus <sup>1</sup>	1.5%	1.35%
Bike	3.94%	6.0%
Walk	12%	9.8%
Other	0.5%	1.25%
Don't know/refuse	0%	0%

Source:

Tahoe Regional Planning Agency, Travel Mode Share Survey, raw data set, finalized October 2010

Tahoe Regional Planning Agency, Travel Mode Share Survey, raw data set, finalized December 2006

Notes:

- (1) Ferry is not included, because there was no public ferry service in 2006 or 2010.

4. Decrease in automobile vehicle miles travelled per capita (excluding through-trips).

VMT per capita is a measure of the efficiency of the transportation system and the degree to which the land use pattern affects personal motor vehicle travel. VMT is measured through an activity-based computer model, which is updated with empirical data including traffic counts, population, and parcel-based land-use data.

In calculating VMT per capita, as reported here, the following methodology was used:

- VMT is for travel in the Lake Tahoe Basin on a peak summer day (Friday in August)
- VMT includes travel for Day Visitors, External Workers, Overnight Visitors, Residents, and Seasonal Residents.
- VMT excludes “Through” trips, i.e., trips that begin and end outside the Tahoe Basin
- VMT is divided by the resident population, as calculated in the TRPA/TMPO Travel Model from parcel-specific land-use data

Model Updates

TRPA staff continually updates the transportation model as better travel information and modeling technology become available. As the model is improved over time, baseline estimates will need to be revised in order to be comparable with future model outputs. The estimate provided here is from the 2013 model version.

VMT per capita will be derived from VMT estimates every four years, when VMT is updated through the TRPA Threshold Evaluation and in accordance with TRPA Code of Ordinances Section 50.4.3, LOS and VMT Monitoring.

**2010 Baseline VMT per Capita: 33.7%**

2010 Vehicle Miles Traveled		
Traveler Type	Daily Vehicle Miles Traveled (VMT)	Percentage of Total Travel
Day Visitor	623,216	33%
External Worker	141,240	7.5%
Overnight Visitor	193,028	10.2%
Resident	733,060	38.8%
Seasonal Resident	144,731	7.7%
Through Traveler	55,906	3%
Total	1,891,181	
2010 Population	54,473	
VMT/Capita, excluding Through Trips	<b>33.7%</b>	

Source:

(1) TRPA/TMPO Travel Model, 2013 Model Version

5. Accelerate privately-funded coverage removal from Stream Environment Zones and other Sensitive Lands.

The data for coverage transfers was obtained by querying records from TRPA’s permit tracking system (Accela), and conducting physical file research to fill in missing data. The Accela query was

for all transfer applications submitted each year. The list was then sorted to show only transfers that were applications to TRPA and had been finalized.

All remaining records were then physically searched to determine the amount of coverage being transferred, the sending and receiving parcels for each transfer, and the land capability or IPES score of the sending parcels.

The following table depicts the annual average transfer rate from 2008-12:

Because the physical file search is time intensive, the baseline data only extends to 2008. Additional work will be completed to identify baseline trends since 2002 to be more reflective of the normal range of market conditions. Staff is aware of transfers to Centers during the 2002-07 period and expects a higher baseline with the longer review period – no residences, tourist units of

<b>Coverage Transfer by Year</b>		
Year	SEZ Transfer (sq.ft.)	Sensitive Transfer (sq.ft.)
2012	1,400	0
2011	24,883	6,351
2010	1,265	395
2009	1,396	2,229
2008	0	423
Five year average	5,789 (0.13 acres)	1,880 (0.04 acres)

development rights were transferred to centers since 2008.\

For excess coverage mitigation (ECM) fees, the best available information was used to determine average annual ECM fees collected from 2008 through 2011. For Nevada, TRPA collects all ECM fees and deposits them into an interest bearing account, until they are distributed to the Nevada Land Bank for expenditure on mitigation projects. Using TRPA’s Springbrook financial software, all deposits into the Nevada ECM account, not including accrued interest, were queried for Fiscal Years 2008 through 2011. This approach provides an accurate value for ECM fees collected because all Nevada ECM fees, and no other funds, are deposited into this account.

For California, TRPA collects ECM fees as well as other funds payable to the CA land bank through TRPA approved sales and transfers. Other funds payable to the CA land bank include payments for sales of banked coverage, SEZ restoration credits, and marketable rights such as CFA and TAUs. The CA land bank then provides reports to TRPA, which separate ECM fees from sales of marketable rights, and breakdown ECM fees by Hydrologically Related Areas. Since ECM fees are combined with

other funds payable to the CA land bank in the TRPA account, the reporting from the CA land bank was used to derive the annual ECM fees collected. While this provides a reliable value for ECM fees, it should be noted that the CA land bank reports fees by calendar year rather than fiscal year. This results in slightly different reporting periods for the CA and NV land banks. Due to these different reporting approaches, year to year comparisons for 2008 – 2011 between Nevada and California may not be comparable, but it provides an accurate annual average for the period.

Total annual ECM fees for Nevada and California are presented in the table below. The annual average ECM fees collected for the entire Region from 2008 through 2011 is \$251,778.

	2008	2009	2010	2011	Average
NV Excess Coverage Fees	\$164,104	\$118,045	\$49,796	\$75,724	\$101,917
CA Excess Coverage Fees	\$279,707	\$150,106	\$106,414	\$63,216	\$149,861
Total	\$443,811	\$268,151	\$156,210	\$138,940	\$251,778

6. Accelerate issuance of BMP Certificates in conjunction with property improvements.

To date, 15,803 BMP certificates have been issued in the Tahoe Region. Basin-wide, the rate of BMP installation from 2000-2012 is 1,216 certificates/year. Data collection for BMP certificates issued through permitted projects was not collected until 2008. To date, 1,473 BMP Certificates were issued as a result of a permitted project at an average annual rate of 1% of outstanding certificates.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Annual Average
Number of properties without a BMP Certificate	43401	42571	41897	40801	39089	37326	35533	33838	32198	30661	29604	28274	27667	
Total BMP Certificates Issued	69	830	674	1096	1712	1763	1793	1695	1640	1537	1057	1330	607	1216
Number of BMP Certificates Issued from Permitting	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	177	316	371	420	189	295



Percent (%) of outstanding BMP Certificates from permitting	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	0.5%	1.0%	1.3%	1.5%	0.7%	<b>1.0%</b>
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Certificate Data and permitted project data were pulled directly from the BMP Database Query Tool. As new BMP certificates are issued, this information is updated accordingly. The number of certificates from permitted projects was determined from the inspector field data. Any parcel with the inspector field labeled “security” was the result of a permitted project.

7. Achieve TMDL performance benchmarks.

Tables 10.1, 10.2 and 10.3 on page 10-4 of the Final Nevada and California Lake Tahoe TMDLs outline baseline basin-wide pollutant loads and milestone load reduction targets for each source category necessary to attain the deep water transparency standard by 2076 (Final TMDL Report, November 2010, p. 10-4 ; Nevada Final TMDL , August 2011, p.10-4):

**Table 10-1. Fine Sediment Particle Load Allocations by Pollutant Source Category.**

	Baseline Load		Milestone Load Reductions												Standard Attainment - 65 yrs
	Basin-Wide Load (Particles/yr)	% of Basin-Wide Load	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	40 yrs	45 yrs	50 yrs	55 yrs	60 yrs	
<b>Forest Upland</b>	4.1E+19	9%	6%	9%	12%	12%	13%	14%	15%	16%	17%	18%	19%	20%	20%
<b>Urban Upland*</b>	3.5E+20	72%	10%	21%	34%	38%	41%	45%	48%	52%	55%	59%	62%	66%	71%
<b>Atmosphere</b>	7.5E+19	16%	8%	15%	30%	32%	35%	37%	40%	42%	45%	47%	50%	52%	55%
<b>Stream Channel</b>	1.7E+19	3%	13%	26%	53%	56%	60%	63%	67%	70%	74%	77%	81%	85%	89%
<b>Basin Wide Total</b>	4.8E+20	100%	10%	19%	32%	35%	38%	42%	44%	47%	51%	55%	58%	61%	65%

**Table 10-2. Total Nitrogen Load Allocations by Pollutant Source Category.**

	Baseline Load		Milestone Load Reductions													Standard Attainment - 65 yrs
	Basin-Wide Nitrogen Load (MT/yr)	% of Basin-Wide Load	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	40 yrs	45 yrs	50 yrs	55 yrs	60 yrs		
<b>Forest Upland</b>	62	18%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Urban Upland*</b>	63	18%	8%	14%	19%	22%	25%	28%	31%	34%	37%	40%	43%	46%	50%	
<b>Atmosphere</b>	218	63%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%	
<b>Stream Channel</b>	2	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Basin Wide Total</b>	345	100%	2%	3%	4%	5%	6%	6%	7%	7%	8%	8%	9%	9%	10%	

**Table 10-3. Total Phosphorus Load Allocations by Pollutant Source Category.**

	Baseline Load		Milestone Load Reductions													Standard Attainment - 65 yrs
	Basin-Wide Phosphorus Load (MT/yr)	% of Basin-Wide Load	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	40 yrs	45 yrs	50 yrs	55 yrs	60 yrs		
<b>Forest Upland</b>	12	32%	1%	1%	1%	1%	1%	1%	2%	2%	2%	2%	2%	3%	3%	
<b>Urban Upland*</b>	18	47%	7%	14%	21%	23%	26%	28%	31%	33%	36%	38%	41%	44%	46%	
<b>Atmosphere</b>	7	18%	9%	17%	33%	36%	39%	42%	45%	48%	51%	53%	56%	58%	61%	
<b>Stream Channel</b>	1	3%	8%	15%	30%	32%	34%	36%	38%	40%	42%	44%	46%	48%	51%	
<b>Basin Wide Total</b>	38	100%	5%	10%	17%	19%	22%	24%	26%	28%	30%	32%	33%	34%	35%	

\*Urban upland load reduction requirements constitute wasteload allocations for the City of South Lake Tahoe, El Dorado County, Placer County, the California Department of

Transportation, and the Nevada Department of Transportation, and load allocations for Douglas County jurisdictions and Washoe County.

Load Reduction Targets for each Jurisdiction

**California**

The State Water Board Municipal NPDES permit for El Dorado County, Placer County and City of South Lake Tahoe, outlines local jurisdiction specific targets to meet the first five year TMDL milestone for the urban uplands source category in Table IV.B.1:

Jurisdiction	Baseline FSP (# of particles)	FSP Allowable Load	Baseline TP (kg)	TP Allowable Load	Baseline TN (kg)	TN Allowable Load
El Dorado County	2.2 x 10 <sup>19</sup>	2.0 x 10 <sup>19</sup>	1043	970	4082	3755
Placer County	2.6 x 10 <sup>19</sup>	2.3 x 10 <sup>19</sup>	1111	1033	4635	4264
City of South Lake Tahoe	1.9 x 10 <sup>19</sup>	1.7 x 10 <sup>19</sup>	789	734	3361	3092

To meet these pollutant load reductions, each Municipal NPDES Permittee shall earn and maintain Lake Clarity Credits outlined in Table IV.B.2 in accordance with the Lake Clarity Crediting Program:

Jurisdiction	Min. Lake Clarity Credit Requirement*
El Dorado County	220
Placer County	260
City of South Lake Tahoe	190

\*The Lake Clarity Crediting Program Handbook defines one (1) Lake Clarity Credit as equal to 1.0 x 10<sup>16</sup> fine sediment particles with a diameter less than 16 micrometers

A copy of the CA Municipal NPDES permit is saved here: F:\groups\RPU PMS\BENCHMARK DATA\7. TMDL

The California Department of Transportation (Caltrans) pollutant loads are regulated through a separate Statewide NPDES permit. The permit requires that Caltrans reduce fine sediment particle (FSP), total phosphorus (TP), and total nitrogen (TN) loads by 10%, 7%, and 8%, respectively, by September 30, 2016. To demonstrate compliance with these requirements, Caltrans must earn and maintain 361 Lake Clarity Credits for water year 2015/2016 (p.129, Statewide Caltrans NPDES permit).

**Nevada**

The Final Nevada Lake Tahoe TMDL states that following EPA approval in August 2011, NDEP will establish Memoranda of Agreement with Washoe County, Douglas County and the Nevada Department of Transportation, to regulate and track urban upland load reduction actions (NV LT TMDL, 2011, p. 11-8). The TMDL requires that local jurisdictions develop 2004 baseline pollutant load estimates from catchments and use the Lake Clarity Crediting Program to demonstrate load reduction progress. Once baseline loads are determined, NDEP will apply the percent reduction milestone from tables 10-1, 10-2 and 10-3 above to determine the number of credits targeted for each five-year milestone (NV LT TMDL, 2011, p. 11-9). Within the first five years, Nevada jurisdictions must reduce baseline loads of FSP by 10%, nitrogen by 8% and phosphorus by 7%. Table 11-1 in the Final Nevada TMDL outlines the best estimate implementation and reporting schedule for the urban uplands source category, which may be revised based on available funding and other feasibility factors. Baseline load estimates are expected to be submitted to NDEP within two years of the August 2011 EPA approval of the TMDL, which would be August 2013.

**Table 11-1. Lake Tahoe TMDL Implementation/Reporting Schedule – Urban Uplands**

Action	Schedule	Responsible Party***
Submit Storm Water Management Plans or equivalent to Water Board and NDEP describing how 5-year load reduction targets will be met	Two years after TMDL approval* and every five years following	El Dorado County Placer County Douglas County Washoe County California Department of Transportation
Submit jurisdiction-specific 2004 baseline load estimates for fine sediment particles, phosphorus, and nitrogen to respective regulatory authority (Water Board or NDEP) for review/approval**	Two years after TMDL approval*	Nevada Department of Transportation City of South Lake Tahoe
Reduce and maintain pollutant loads of fine sediment particles, total phosphorus, and total nitrogen as specified in Table 10-1, Table 10-2, and Table 10-3	Achieve the percent reduction specified for each respective 5-year milestone following TMDL approval*	

\*TMDL approval is the date the USEPA approves the Lake Tahoe TMDL. Timeframe for schedule represents a best estimate, considered tentative, and may be revised based on availability of adequate funding and other feasibility factors as may later be determined germane by NDEP and/or the Water Board.

\*\*The baseline load estimates must be done using either the Pollutant Load Reduction Methodology, or an equivalent method that uses a continuous hydrologic simulation process and other similar input values.

\*\*\*Within Nevada, only counties have been listed as Responsible Parties as it is assumed that these are the municipalities that will take the lead role in cooperatively implementing the Recommended Strategy with other public and private entities and progress reporting through Lake Clarity Crediting Program participation.

#### Approved/Proposed load reduction plans for each jurisdiction (charts, project lists)

Load reduction plans include projects lists as well as other strategies, including but not limited to, operations and maintenance actions, street sweeping, road abrasives management, and private parcel BMP compliance. These actions are converted to credits according to the Lake Clarity Crediting Program in order to demonstrate compliance with meeting TMDL pollution load reduction requirements.

#### California

Municipal NPDES Permittees are required to prepare load reduction plans describing how they expect to meet the pollutant load reduction requirements and submit to the Lahontan Regional Water Quality Control Board no later than March 15, 2013. Completed Pollutant Load Reduction Plans (PLRPs) for Placer County, El Dorado County and the City of South Lake Tahoe were provided to TRPA by Lahontan Regional Water Quality Control Board in March, 2013.

The Statewide Caltrans NPDES permit requires Caltrans to prepare a load reduction plan describing how they expect to meet the pollutant load reduction requirements and submit to the Lahontan Regional Water Quality Control Board no later than September 15, 2013. This load reduction plan is currently in progress.

#### Nevada

Table 11-1 of the Lake Tahoe TMDL best estimates that two years following its approval in August 2011, Washoe County, Douglas County and NDOT will submit load reduction plans describing how they plan to meet five-year load reduction targets (NV LT TMDL, 2011, p.11-9). Currently, phase 1 of Stormwater Load Reduction Plans (SLRPs) for Washoe County, Douglas County and NDOT are funded, in progress and expect to be complete by October, 2013. Phase 1 of the SLRPs includes complete baseline conditions load modeling (2004), existing conditions load modeling (2012), detailed reports on the load reductions achieved thus far (through 2012), and a prioritization of catchments for future water quality improvement projects (Source: personal communication with Karin Staggs, NTCD, 04/03/2013). Phase 2 of the SLRPs involves developing cost estimates, fiscal analyses, and guidance specific to each jurisdiction to achieve their load reductions for the TMDL milestones. Currently, Phase 2 funding opportunities are being finalized with SLRPs expected to be complete by mid to late 2014 (Source: personal communication with Karin Staggs, NTCD, 04/03/2013).

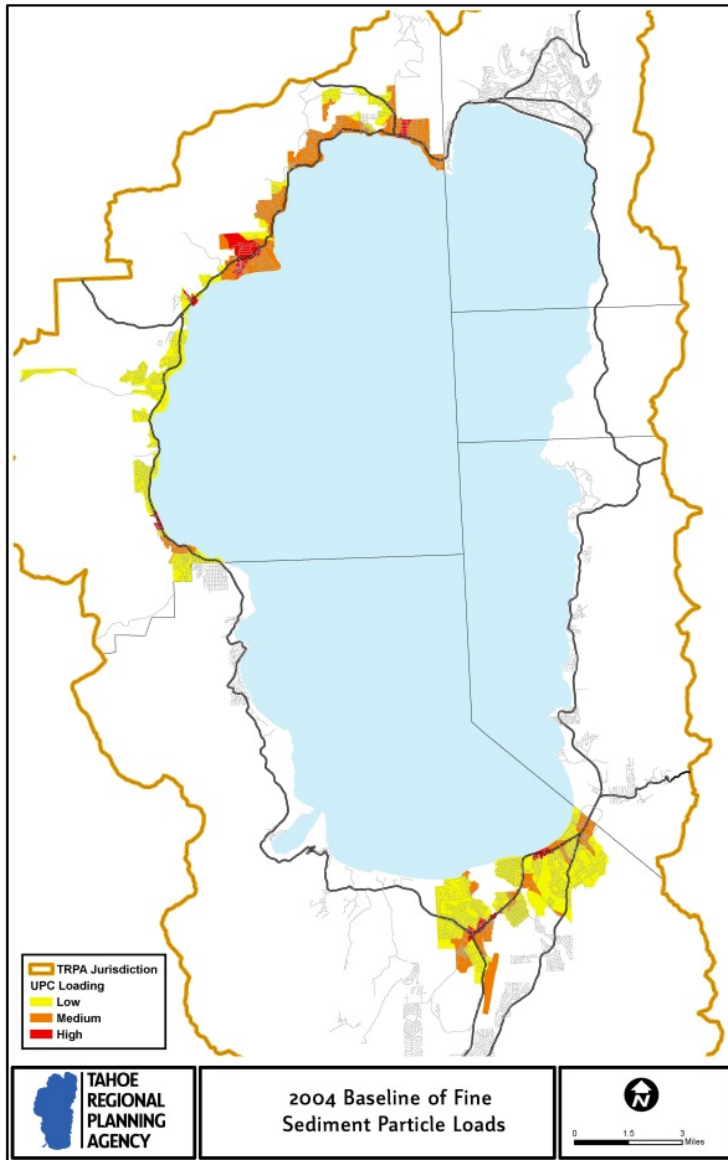
#### Data description and methodology for future tracking

TRPA Code section 13.8.2 requires TMDL regulatory agencies to provide TRPA annual progress reports and analysis, copies of all MOAs and NPDES permits, and notifications of all breaches or violations of

Baseline Data for Regional Plan Performance Measures

MOAs and NPDES permits.

TRPA currently has GIS shapefile data layers from Placer County and the City of South Lake Tahoe depicting planning catchment boundaries with associated 2004 Fine Sediment Particles (FSP) baseline pollutant load data (See map below for more detail). It is expected that these data will be updated over time to include existing conditions from 2013 and future loads every four or five years after.



8. Accelerate Scenic Threshold attainment on urban roadways.

Lake Tahoe currently has 54 Roadway Travel Units total. 14 of these are classified as Urban Roadway Travel Units. These units include the urbanized portions of the Region. Roadway units for less urbanized areas are classified as natural or transition roadway units and are not included in this

performance measure because they are not expected to be influenced by Redevelopment activities within Centers.

The scenic threshold for roadway units is to maintain the 1982 rating if the rating was 15.5 or greater at that time; or to achieve a rating of 15.5 if the 1982 rating was less than 15.5. To provide a consistent methodology, the baseline for scenic ratings begins in 2001 because two of initial 1982 roadway units were divided into segments at that time.

In 2011, four urban roadway units were in attainment and ten were out of attainment. While urban roadway unit scores improved from 2001 to 2011, only one non-attaining unit reached attainment during that time period. The average annual attainment rate for non-attaining urban roadway units from 2001 to 2011 was 1 percent (ten percent of non-attaining units over a ten year period).

Urban Roadway Travel Units		Score over time					
Location	Unit #	1982	1991	1996	2001	2006	2011
Tahoe Valley/CSLT	1	11	11	12	12	12	12
Tahoe City/Tahoe Tavern	14	13	14	14.5	14.5	15.5	15.5
Tahoe City	15	12	13	13	16.5	16.5	16.5
Kings Beach <sup>1</sup>	20B	N/A	N/A	N/A	12.5	13.5	13.5
Crystal Bay <sup>1</sup>	20D	N/A	N/A	N/A	13	13.5	13.5
Incline Village	22	12	12	12	13.5	14	14
Meadow/Douglas County	31	14	14	14	16	17.5	17.5
Casino Area/Douglas County	32	13	11	11	11.5	13.5	13.5
The Strip/CSLT	33	6	7	7.5	11.5	14	14
El Dorado Beach/CSLT	34	16	16	17	16	16	17
Al Tahoe/CSLT	35	7	7.5	7.5	7.5	8	8.5
Airport Area/El Dorado County <sup>2</sup>	36A	N/A	N/A	N/A	10.5	13	13
Outlet/Placer County	42	10	12	12	12.5	12.5	13
Pioneer Trail North/CSLT	45	10	10	10	11	11.5	11.5
Units in attainment		1	1	1	3	4	4
Units out of attainment		10	10	10	11	10	10
Average annual attainment rate since 2001 = 1 percent							

1. Unit 20, Tahoe Vista, was separated into four units in 2001 due to its length and diversity of character. Portions of the segment are considered transition areas and portions are considered urban. Scores for the larger segment in 1982, 1991 and 1996 were 10, 12 and 13 respectively.

2. Unit 36, Airport Area, was divided into three units in 2001 due to its length and diversity of character. Portions of the segment are considered transition areas and portions are considered urban. Scores for the larger segment in 1982, 1991 and 1996 were 15, 14 and 14.5 respectively.

Roadway Travel Units are evaluated every four years for the TRPA threshold evaluation and GIS data for each scored geographic unit are updated according to their attainment status and a map is

created. The 2011 Threshold Evaluation provides the Roadway Travel Unit Threshold Standard Status Map on p. 9-5 of the Scenic Resources Chapter.

9. Prepare and maintain Area Plans in conformance with the 2012 Regional Plan.

Currently, almost 200 Community Plans and Plan Area Statements address community planning in the Tahoe Region.

Under the 2012 Regional Plan, Area Plans, once approved by local governments and found in conformance with the Regional Plan by TRPA, will replace Community Plans and Plan Area Statements. There are presently nine Area Plans in progress, which in total cover 33 percent or 67,687 of the Tahoe Region's approximately 201,000 acres and are expected to be approved prior to 2015. Local governments decide the planning boundaries and schedules for Area Plans.

TRPA will track and report the acres included in conforming area plans over time.

Additionally, once Area Plans are found in conformance with the Regional Plan, a sample of the permitted development in that area will be reviewed and an annual report including the results from that review will be prepared in accordance with TRPA Code Section 13.8. This "recertification" process will verify that development has been permitted in conformance with the Regional Plan. If development approvals have been issued in accordance with Regional Plan requirements, the Area Plans will be recertified. If inappropriate approvals were granted, corrective action will be required and the Area Plans may not be recertified. TRPA will track and report the rate of recertification, which should be 100%