



# Annual Lake Tahoe Stormwater Report for Water Year 2020

October 1, 2019– September 30, 2020

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**Washoe County**

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## Table of Contents

List of Acronyms .....	iii
1 Background .....	4
2 Accomplishment Summary .....	4
2.1 Credit Declaration and Award .....	4
2.2 Progress Toward 2017 Target .....	5
3 Stormwater Load Reduction Plan .....	7
3.1 Description and Timeline of Controls to be Implemented .....	7
3.2 Estimated Credit Potential of Pollutant Controls .....	7
3.3 Progress Toward 2021 Milestone .....	9
4 Fiscal Analysis .....	12
4.1 Budget .....	12
4.2 Finance Plan .....	13
5 Barriers .....	14
6 Baseline Discrepancies .....	16
References .....	17

Note: [Blue hyperlink text](#) in certain tables may be clicked to access the respective registration pages (LT Info login required).

## List of Acronyms

BAT	Best Available Technology
BMP	Best Management Practices
BMP RAM	Best Management Practices Rapid Assessment Methodology
CICU	Commercial, Institutional, Communications, Utilities
EIP	Environmental Improvement Program
FSP	Fine Sediment Particles
GIS	Geographic Information System
ILA	Interlocal Agreement
IMP	Implementers Monitoring Program
LCCP	Lake Clarity Crediting Program
MFR	Multi-family residential
NDEP	Nevada Division of Environmental Protection
NTCD	Nevada Tahoe Conservation District
O&M	Operations and Maintenance
PLRM	Pollutant Load Reduction Model
RAM	Rapid Assessment Methodology
Road RAM	Road Rapid Assessment Methodology
RSWMP	Regional Stormwater Monitoring Program
SFR	Single-family residential
SLRP	Stormwater Load Reduction Plan
SWQIC	Storm Water Quality Improvement Committee
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
TRPA	Tahoe Regional Planning Agency
WQIP	Water Quality Improvement Project
WY	Water Year (October 1 – September 30)

## 1 Background

The purpose of this report is to comply with the LCCP Handbook and Section IV.D of the *Interlocal Agreement to Implement the Lake Tahoe Total Maximum Daily Load*, dated October 2016 between Washoe County and NDEP. The Lake Tahoe TMDL is a 65-year plan to return Lake Tahoe's historic annual average deep-water clarity of 97.4 feet, and the ILA documents Washoe County's commitment to reduce the FSP load in urban stormwater by establishing the second five-year TMDL credit milestone and intermediate annual credit targets. This report summarizes Washoe County's load reduction activities undertaken during Water Year 2020 (October 1, 2019 through September 30, 2020) to meet the credit milestones and targets established in the ILA.

## 2 Accomplishment Summary

To meet the WY2020 intermediate credit target, Washoe County maintained its road registration and nine existing BMP registrations. The County also completed three (3) new BMP registrations. The East Incline Village Ph I WQIP was broken into four areas, and areas 1, 2 and 3 were registered as East Incline Village Phase I Reg 1, Reg 2 and Reg 3 BMP Registrations. RAMs were completed for all registrations, resulting in the declaration and award of 389 lake clarity credits shown in Table 1.

Several committees and working groups provide input into the program decisions affecting the implementation of the Lake Tahoe TMDL. In addition to crediting activities, Washoe County participated in the following committees that provided program guidance for the Lake Tahoe TMDL: Parcel BMP Working Group; and the Stormwater Quality Improvement Committee (SWQIC), including two subcommittees—Stormwater Operations & Maintenance (O&M) and the Implementers' Monitoring Program (IMP). The Stormwater Tools Improvement Phase 3 project was also completed in WY2020; the project implemented the remaining identified priority improvements and policy updates to the Lake Tahoe Info Stormwater Tools platform for the LCCP. Washoe County was represented on the Project Advisory Committee (PAC) for this project by NTCD.

### 2.1 Credit Declaration and Award

As identified in the 2016 ILA with NDEP, Washoe County's intermediate annual credit target for WY2020 is 276 credits (19% reduction in FSP). Per the 2019 Annual Report, Washoe County projected to register 375 credits to meet the credit target based on road operations, completed water quality improvement projects and parcel BMP certifications. Washoe County declared 389 credits and was awarded 389 credits, exceeding the WY2020 target (see Table 1). These annual targets are guidelines to show incremental progress toward achieving the five-year milestones that are referenced for compliance, and the County is still on track to achieve the 2021 milestone (see Section 3.3).

**Table 1. Jurisdiction-wide Credits Projected, Declared, and Awarded**

Water Year	Annual Credit Target	2021 Five Year Milestone	Lake Clarity Credits Projected <sup>[a]</sup>	Lake Clarity Credits Declared	Lake Clarity Credits Awarded
2020 (October 2019 – Sep 2020)	276	305	375	389	389

[a] Projected credits are based on WY2019 Annual Report total credits anticipated to be registered during WY2020.

## 2.2 Progress Toward 2020 Target

Washoe County worked diligently with NTCD (who performed the PLRM modeling and RAMs) and NDEP to declare 389 credits for WY2020 and surpassed the annual credit target of 276 credits. The County maintained its existing ten registrations for full credit and added three new treatment BMP registrations (East Incline Village Phase I Reg 1, Reg 2 and Reg 3 BMP Registrations). Washoe County is on track to meet the 2021 milestone.

### **Road Operations Implementation Summary**

Washoe County's WY2017 Road Registration includes 69 potential credits per year with a five-year credit schedule through WY2021, representing a network of 7.0 miles of Priority 1 (road class) roadway with an Expected Condition Score of 3.4 for all roads within this class.

Washoe County completed four Road RAM inspections for WY2020, in accordance with LCCP. The inspections were conducted in November of 2019, and in February, April and May of 2020. Washoe County's roads crews worked to maintain optimal road conditions throughout the year, and subsequently received inspection scores of 4.1 (Fall/Winter), and 4.5 (Spring), with an average annual Road RAM score of 4.4. Thus, Washoe County achieved and surpassed its expected road condition score (3.4) and was awarded 69 credits by NDEP on December 14, 2020.

**Table 2. Potential, Declared, and Awarded Credits from Road Operations**

Road Registration Name	Primary Water Quality Improvement Actions	Declaration Date	Annual Credit Potential <sup>[a]</sup>	Credits Declared	Credits Awarded
<a href="#">Washoe County Road Registration- Water Year 2017-2021</a>	Road Operations & Maintenance	12/14/2020	69	69	69
<b>TOTAL</b>			<b>69</b>	<b>69</b>	<b>69</b>

[a] Expected credits are based on the verified registration in LT Info Stormwater Tools.

### **BMP Implementation Summary**

Washoe County has completed many WQIPs in the Lake Tahoe Basin since the 2004 start date for TMDL compliance; due to the high rate of parcel BMP implementation in Washoe County, both parcel BMP and treatment BMP load reductions are being registered as pollutant controls. During WY2020, Washoe County registered three new BMP registrations, as shown in Table 3.

Washoe County's three new registrations are all a result of the East Incline Village Phase I WQIP. Based on past registrations, Washoe County divided the large project into smaller LT Info Stormwater Tools registrations for ease of registration and regulatory review. All three registrations, East Incline Village

Phase I Reg 1, Reg 2 and Reg 3 BMP Registrations were established as of October 1, 2019; thus, Washoe County received full credit for WY2020. Additionally, three existing BMP Registrations (Fairview/Fairway Ph III WQIP Rosewood Creek, Fairview/Fairway Ph III WQIP Upper Deer Creek and Central Incline Village Phase I WQIP) were updated due to a misalignment of the PLRM GIS and TRPA parcel land use types creating incorrect parcel BMP percentages. Otherwise, Washoe County completed all required Road and BMP inspections on schedule to be eligible for all remaining expected credits.

During summer 2020, NTC D performed BMP RAM for registered Key and Essential treatment BMPs to meet the annual BMP RAM requirements for registered treatment BMPs and inform Washoe County of maintenance needs. Washoe County's roads crews performed the identified maintenance, including spot cleaning of conveyance features and treatment features (basins and Jellyfish), maintenance of staff gauges, and stabilization of erosion caused by summer thunderstorms and winter snowmelt. The Washoe County Roads Department vector truck allowed the crews to clean all pertinent stormwater infrastructure in the Incline Village area in WY2020.

**Table 3. Potential, Declared, and Awarded Credits from BMP Implementations**

Registration	Primary Water Quality Improvement Actions	Declaration Date	Annual Credit Potential <sup>[a]</sup>	Credits Declared	Credits Awarded
<a href="#">Fairview/Fairway Ph III WQIP Upper Deer Creek</a>	Stormwater Treatment BMPs, Parcel BMPs	10/10/2020	37	37	37
<a href="#">Fairview/Fairway Ph III WQIP Rosewood Creek</a>	Stormwater Treatment BMPs, Parcel BMPs	10/10/2020	14 <sup>[b]</sup>	14	14
<a href="#">Central Incline Village Phase I WQIP</a>	Stormwater Treatment BMPs, Parcel BMPs	10/10/2020	36	36	36
<a href="#">C07 Parcel BMP</a>	Parcel BMPs	10/10/2020	12	12	12
<a href="#">E01 Parcel BMP</a>	Parcel BMPs	10/10/2020	3	3	3
<a href="#">G01 Parcel BMP</a>	Parcel BMPs	10/10/2020	2	2	2
<a href="#">Diamond Peak (WC68) Parcel BMP</a>	Parcel BMPs	10/10/2020	25	25	25
<a href="#">Central Incline Village Phase II BMP</a>	Stormwater Treatment BMPs, Parcel BMPs	10/10/2020	14	14	14
<a href="#">Central Incline Village Phase I &amp; East Incline Village Phase I</a>	Stormwater Treatment BMPs, Parcel BMPs	10/10/2020	78	78	78
<a href="#">East Incline Village Phase I Reg 1</a>	Stormwater Treatment BMPs, Parcel BMPs	10/10/2020	56	56	56
<a href="#">East Incline Village Phase I Reg 2</a>	Stormwater Treatment BMPs, Parcel BMPs	12/16/2020	22	22	22
<a href="#">East Incline Village Phase I Reg 3</a>	Stormwater Treatment BMPs, Parcel BMPs	12/16/2020	21	21	21
<b>TOTAL</b>			<b>320</b>	<b>320</b>	<b>320</b>

[a] Credit potential is based on verified registrations in LT Info Stormwater Tools.

[b] Potential credits have changed since WY2019 due to changes to the LT Info Stormwater Tools Parcel BMP tool and subsequent registration updates.

### **3 Stormwater Load Reduction Plan**

#### **3.1 Description and Timeline of Controls to be Implemented**

In accordance with the 2016 ILA, Washoe County must register 305 credits—or 21% load reduction—in order to meet the 2021 Pollutant Load Reduction Milestone for FSP. To meet the milestone, Washoe County plans to maintain the registrations listed in Table 4 and register the catchments listed in Table 5 and Table 6, according to the timelines presented (see Figure 1). Pollutant controls proposed for registration include all three load reduction categories: road operations, parcel BMPs, and treatment BMPs. In addition, Washoe County is currently on track to meet the intermediate credit target for 2025 to satisfy the five-year planning horizon.

#### **3.2 Estimated Credit Potential of Pollutant Controls**

Estimated credit potential from FSP load reductions for existing and proposed credit registrations are identified in Table 4 through Table 6. Table 4 presents the active registrations for WY2020 and indicates the annual credit potential for these registrations. For WY2021, Washoe County has 389 potential credits from these registrations.

**Table 4. Existing Registrations – Potential Credits**

Registration	Pollutant Controls	Establishment Water Year	Expiration Water Year	Annual Credit Potential <sup>[a]</sup>
Existing Registrations				
<a href="#">Fairview/Fairway Ph III WQIP Upper Deer Creek Registration</a>	Stormwater Treatment BMPs, Parcel BMPs	2016	2026	37 <sup>[b]</sup>
<a href="#">Fairview/Fairway Ph III WQIP Rosewood Creek Registration</a>	Stormwater Treatment BMPs, Parcel BMPs	2016	2030	14 <sup>[b]</sup>
<a href="#">Washoe County Road Registration- Water Year 2017-2021</a>	Road Operations & Maintenance	2017	2021	69
<a href="#">Central Incline Village Phase I WQIP Registration</a>	Stormwater Treatment BMPs, Parcel BMPs	2017	2031	36 <sup>[b]</sup>
<a href="#">C07 Parcel BMP Registration</a>	Parcel BMPs	2017	2023	12 <sup>[b]</sup>
<a href="#">E01 Parcel BMP Registration</a>	Parcel BMPs	2017	2031	3 <sup>[b]</sup>
<a href="#">G01 Parcel BMP Registration</a>	Parcel BMPs	2017	2031	2 <sup>[b]</sup>
<a href="#">Central Incline Village Ph II WQIP Registration</a>	Stormwater Treatment BMPs, Parcel BMPs	2018	2032	14
<a href="#">Diamond Peak (WC68) Parcel BMP Registration</a>	Parcel BMPs	2018	2032	25
<a href="#">Central Incline Village Phase II and East Incline Village Phase I BMP Registration</a>	Stormwater Treatment BMPs, Parcel BMPs	2019	2033	78
<a href="#">East Incline Village Phase I Reg 1 BMP Registration</a>	Stormwater Treatment BMPs, Parcel BMPs	2020	2034	56
<a href="#">East Incline Village Phase I Reg 2 BMP Registration</a>	Stormwater Treatment BMPs, Parcel BMPs	2020	2034	22
<a href="#">East Incline Village Phase I Reg 3 BMP Registration</a>	Stormwater Treatment BMPs, Parcel BMPs	2020	2034	21
Potential WY2021 Credits from Existing Registrations				389

[a] Potential credits are based on verified registrations in LT Info Stormwater Tools.

[b] Potential credits have changed since WY2019 due to changes to the LT Info Stormwater Tools Parcel BMP tool and subsequent registration updates.

Table 5 presents no registrations for the WY2021, as the projected project (East Incline Village Phase I Reg 4) is unable to be registered at this time due a maintenance issue. The 389 current potential credits will remain as is for WY2021, which exceeds the water year target of 305 (see Table 5).



Projected Lake Clarity Credits for proposed credit registrations identified in Table 5 and Table 6 have been compiled from the best available sources, including preliminary draft registration work using PLRM v2.1. The actual load reduction and credit potential are expected to change as each catchment is registered. The updated baseline calculations will be used as the starting point for future registrations and input parameters will be refined to more accurately reflect catchment conditions.

**Table 5. Proposed Credit Registration Schedule and Credits for WY2021**

Registration <sup>[a]</sup>	Pollutant Controls	Year Implemented	Planned Registration Timeline	Projected Credits
Proposed WY2021 Registrations				
N/A	-	-	-	-
Projected New WY2021 Credits				0
Potential Existing WY2020 Credits				389
Total Projected WY2021 Credits				389

### 3.3 Progress Toward 2021 Milestone

#### Assessment and Planning

Washoe County plans to continue registering pollutant controls to meet credit targets and milestones for coming years. Table 6 presents the WQIPs/Urban Catchments that Washoe County anticipates registering to achieve the 2021 credit milestone, as well as the 2025 intermediate target. As shown in the table, Washoe County estimates 0 additional credits by 2021 for a total of 389 credits, which exceeds the 2021 milestone of 305 (see Table 6). Washoe County also anticipates registering an additional 72 credits by 2025, for a total of 490 credits to satisfy Washoe County's intermediate credit target for the five-year planning horizon.

To meet the 2021 Milestone, Washoe County plans to maintain the registrations listed in Table 4 and register the catchments listed in Table 5 and Table 6. Registrations include road operations, stormwater treatment BMPs and parcel BMPs. All proposed stormwater treatment BMP registrations reflect existing infrastructure installed after 2004.

In 2017, NTCDC conducted a study for Washoe County to determine the potential number of Clarity Credits that could be attained by Washoe County if there was 100% compliance by private parcels with TRPA's Parcel BMP Program. The study indicated that over 50% of the 1,043 credits required of the County by the 65-year milestone could be achieved through private parcel BMPs (NTCD, 2018).

Washoe County is working to identify a sustainable funding source for TMDL implementation (see Section 4.1). Additionally, the County is initiating a project to develop a 10-year Stormwater Master Plan that could include an assessment of existing conditions and resources, development of a TMDL Compliance Plan and implementation of a Stormwater Asset Management Program. These components not only assist the County in compliance with the ILA and protection of Lake Tahoe water clarity, but also for long-term planning and identification of sustainable funding to support the County's Program.

**Table 6. Proposed Future Credit Registration Schedule**

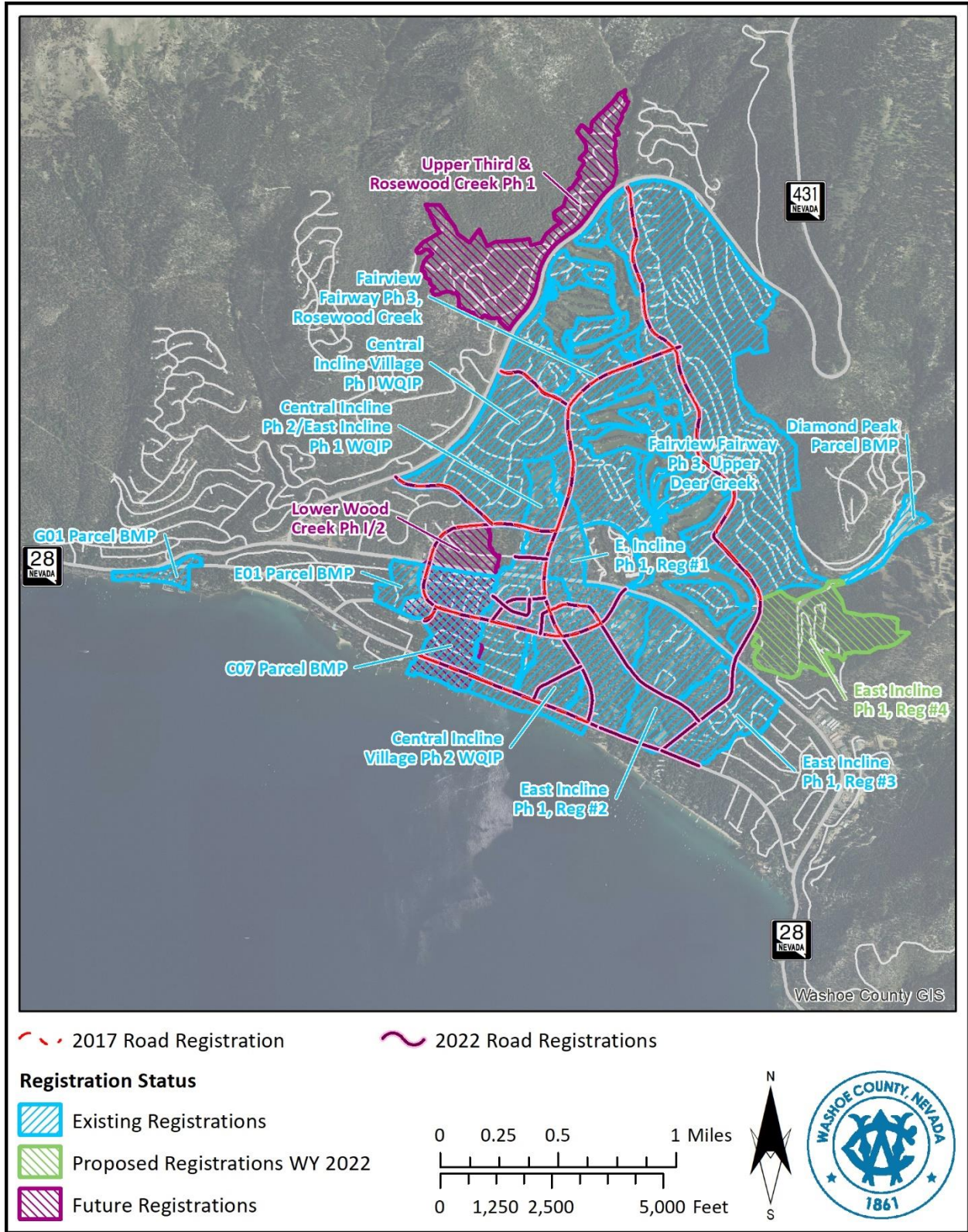
Registration <sup>[a]</sup>	Estimated Credit Potential by WY <sup>[b][c]</sup>					Comments
	2021	2022	2023	2024	2025	
<a href="#">Fairview/Fairway Ph III WQIP - Upper Deer Creek</a>	37	37	37	37	37	
Road Registration - WY2017	69	-	-	-	-	Registered @ 3.4; Expires 2021
<a href="#">Fairview/Fairway Ph III WQIP - Rosewood Creek</a>	14	14	14	14	14	
<a href="#">Central Incline Village Ph I WQIP</a>	44	44	44	44	44	Credits increased from 36 to 44 due to WY21 registration update
<a href="#">C07 Parcel BMP</a>	12	12	-	-	-	Expires 2023; will be superseded by LWC Ph I & II WQIP
<a href="#">E01 Parcel BMP</a>	3	3	3	3	3	
<a href="#">G01 Parcel BMP</a>	2	2	2	2	2	
<a href="#">Central Incline Village Ph II WQIP</a>	14	14	14	14	14	
<a href="#">Diamond Peak (WC68) Parcel BMP</a>	25	25	25	25	25	
<a href="#">Central Incline Ph II/ East Incline Ph I WQIP</a>	78	78	78	78	78	
<a href="#">East Incline Village Ph I WQIP Registration #1</a>	56	56	56	56	56	
<a href="#">East Incline Village Ph I WQIP Registration #2</a>	22	22	22	22	22	
<a href="#">East Incline Village Ph I WQIP Registration #3</a>	21	21	21	21	21	
East Incline Village Ph I WQIP Registration #4		10	10	10	10	
Road Registration - WY2022		99	99	99	99	Expanded Priority 1 Class @ 3.4
Lower Wood Creek Phase I & II WQIP			40	40	40	
Upper Third & Rosewood Creeks Phase I WQIP					30	
<b>Total</b>	<b>397</b>	<b>437</b>	<b>465</b>	<b>465</b>	<b>495</b>	
ILA Credit Target/Milestone <sup>[d]</sup>	305	334	363	407	450	2021 is next Milestone for compliance

[a] See Figure 1 for map of proposed registration areas.

[b] For pollutant controls in place at the beginning of the water year, Washoe proposes to be eligible for all expected credits during the first year of the credit schedule.

[c] Projected credits are estimates only. Due to PLRM refinements that occur during registration, the Modeled FSP Load Reductions and Projected Lake Clarity Credits are expected to change upon registration.

[d] WY2021 is a compliance milestone year (305 credits required). Intervening annual targets are guidelines used for the purpose of demonstrating incremental progress and do not determine compliance.



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Washoe County GIS, 3/12/2021

Figure 1. Catchments Planned for Registration to Meet 2021 Milestone

## **Update to Intermediate Credit Target Schedule**

The credit target schedule in Table 6 presents the current ILA load reduction targets and milestones based on the 2016 Jurisdictional Baseline Report. Washoe County is on track to meet each of these targets and milestones and does not propose any changes to the credit schedule currently.

## **4 Fiscal Analysis**

### **4.1 Budget**

Expenses related to the implementation of the Lake Tahoe TMDL include program management, infrastructure maintenance, stormwater monitoring and capital improvements. Washoe County continues to refine program cost estimates with ongoing development of a robust asset management system and continuation of the Lake Tahoe Stormwater Program Support Services Project to identify program costs and evaluate feasible long-term funding sources related to the lake Tahoe TMDL. Project goals include identifying Washoe County's stormwater costs in the Tahoe Basin and identifying options to develop a sustainable funding source. The first project tasks include:

- Defining the Program – This includes developing the understanding of all of Washoe County's Stormwater Program requirements, components and services.
- Developing a Financial Analysis for the Program – This includes developing annual past and future program expenditures for major program elements; identifying any gaps between previous and future costs; and past revenue sources and their future availability.

These tasks have proven to be a significant undertaking, requiring compilation of a substantial amount of cost data related to all aspects of TMDL implementation. The data is currently being analyzed to develop program costs and funding sources. The County will finalize this portion of the project during WY20 and expects to be able to present the results of the Financial Analysis, with a detailed Program budget, in the next Annual Report. In the meantime, the County will continue to advance the program through the following tasks:

- Develop Initial Program Branding – This includes developing Program branding and messaging, which includes defining a compelling title, tag line, and answering key questions about the Program.
- Perform Initial Outreach to Key Stakeholders and Potential Partners – This includes facilitating initial outreach to key stakeholders and potential partners, including the facilitation and documentation of meetings with the identified stakeholders. Based on a compilation of all information, the County will determine if there is strong justification and support to move forward with a funding initiative.

In addition to continuing the cost and funding study, Washoe County implemented Asset Essentials in the summer of 2018; this software allows more detailed tracking of maintenance performed related to the implementation of the Lake Tahoe TMDL. During WY19, the County incorporated updated and improved GIS data, which allows Washoe County to better maintain assets and plan capital projects.

## 4.2 Finance Plan

Historically Washoe County has relied on grant funds for project planning, design and implementation. Washoe County's active grant funded projects (as of September 30, 2020) that support implementation of the Lake Tahoe TMDL are listed in Table 7 and include stormwater quality improvement projects, Best Available Technology (BAT) high efficiency street sweepers, BAT abrasive spreaders for enhanced road operations, participation in TMDL stormwater monitoring, and credit registration. Washoe County uses TRPA Water Quality Mitigation funds as match for BAT equipment purchases, limited infrastructure maintenance, LCCP implementation, and water quality improvement projects. However, the County recognizes these funds are not generated rapidly enough to be considered a long-term funding source. Grant administration is ongoing and includes the submittal of quarterly reports related to each project. In addition to administering the current grants, Washoe County continues to pursue available funding and explore partnerships to meet the requirements of the ILA. Washoe County will continue to target grant funding opportunities, such as the Lake Tahoe Restoration Act (once funding is allocated), Nevada Division of State Lands funding, and NDEP's 319(h) program.

**Table 7. Active Washoe County Projects (as of September 30, 2020)**

Project Description	Funders	Total Funding Amount <sup>[a]</sup>	Funding Period	Water Quality Action
Washoe County Tahoe Basin High Efficiency Sweeper	319(h) WC In Kind Match	\$200,000 \$270,000	2013-2020	Road Operations
Lake Tahoe Stormwater Program Support Services Project	Washoe County GF	\$94,410	2017-2019	Sustainable Water Quality Funding
LCCP Registration and Implementation Ph II <sup>[b]</sup>	319(h) TRPA Mitigation Funds WC In Kind Match	\$45,911.23 \$45,911.23 \$30,000.00	2018-2019	Continue catchment registrations and RAMs
Lower Wood Creek Phase I	NDSL Tahoe Bonds 319(h) TRPA Mitigation Funds Washoe County GF	\$2,365,000 \$353,000 \$606,500 \$115,500	2018-2022	Water quality improvement project and parcel BMPs
TRCD Stormwater Compliance Monitoring <sup>[c]</sup>	Partner Jurisdictions Washoe County GF	\$680,000 \$136,000	2019-2021	TMDL required stormwater monitoring
LCCP Registration and Implementation Ph III	319(h) TRPA Mitigation Funds WC In Kind Match	\$39,229.92 \$36,730.59 \$15,500.00	2020-2021	Continue catchment registrations and RAMs

[a] Funding amounts as of September 30, 2020

[b] Project closed out during WY20

[c] Project management done by TRCD. Washoe County's contract is for three years, and funding amounts assume partner jurisdiction participation for the same term.

Table 88 identifies projects that need to be implemented to meet credit targets and credit milestones beyond 2024. Like many of the Lake Tahoe basin jurisdictions, Washoe County does not have a reliable and sustainable funding source for the additional infrastructure maintenance, stormwater monitoring

and capital project design and construction necessary under the LCCP. As described in Section 4.1, the County is working to develop comprehensive program costs and ultimately identify a feasible long-term approach to fund these and other projects to meet the County's commitments under the TMDL.

**Table 8. Proposed Washoe County Projects (as of Oct 1, 2020)**

Project Description	Targeted Funding Sources	Estimated Total Cost	Implementation Year	Water Quality Action
Expand Road Registration	Washoe County	N/A	2022	Road operations
Lower Wood Creek Phase II	NDSL Tahoe Bonds 319(h) Grant TRPA Mitigation Funds Washoe County GF	\$2,021,257 \$153,000 \$592,903 \$80,850	2023	Water quality improvement project and parcel BMPs
Upper Third & Rosewood Creeks Phase I	NDSL LTRA Reauthorization	\$3,500,000	2024	Water quality improvement project and parcel BMPs
Preston Field <sup>[a]</sup>	Unknown	\$3,000,000	2026	Water quality improvement project and parcel BMPs
Burnt Cedar Creek <sup>[a]</sup>	Unknown	\$3,000,000	2028	Water quality improvement project and parcel BMPs
Upper Wood Creek <sup>[a]</sup>	Unknown	\$2,500,000	2030	Water quality improvement project and parcel BMPs

[a] These projects are not part of Washoe County's 5-year list; therefore, they are not included in the EIP Tracker.

## 5 Barriers

Five major barriers continue to affect Washoe County's successful implementation of the Lake Clarity Crediting Program; these include funding, decrease in prioritization of stormwater quality in the Tahoe Basin, adaptive management, Road RAM, and time needed to administer the LCCP.

1. Lack of a dedicated and sustainable funding source is anticipated to be Washoe County's largest barrier to meeting the Lake Tahoe TMDL. Funding has been obtained for capital projects, stormwater monitoring, and program management required to meet the 2021 milestone; however, funding gaps exist to accomplish these same tasks for the 2026 milestone. Additionally, the County's operations and maintenance costs continue to increase with added stormwater infrastructure and expanding road operations, Washoe County is actively working to document total program expenses and explore future funding options. Until a sustainable funding source is established, Washoe County will continue to rely on limited grant opportunities, diminished TRPA Mitigation funds, and partnering opportunities that result in cost savings.

2. There has been a decrease in federal, state and regional policy prioritization of the importance of stormwater quality impacts in the Lake Tahoe Basin; while other issues affecting the Lake Tahoe Basin, such as forest health, invasive species, biological diversity, climate fluctuation, and TRPA's environmental threshold carrying capacities, have increased in importance. These factors, combined with public observation of the amount of funding previously spent on water quality in the Tahoe Basin, lead to challenges in securing funding for stormwater-related projects and programs. As examples, the Lake Tahoe Restoration Act has provided only very limited funding for watershed projects since 2016, and jurisdictions around the Lake continue to fail at public-supported stormwater funding initiatives.

Although focus and funding have shifted away from stormwater, significant funding is still needed to fully implement the County's Program through the term of the Lake Tahoe TMDL. Dedicated funding is necessary at the programmatic level to ensure incremental progress will be made and to provide better certainty of the return on capital investment through a dedicated maintenance/replacement funding stream.

3. The Lake Tahoe TMDL Program uses adaptive management to incorporate best available science and technical information; a stakeholder review process results in annual findings and possible recommended changes to the TMDL program. As a result, the Stormwater Tools and the LCCP continue to evolve since program inception. While some of the changes are for the better of the program and the tools, others have created uncertainty for the County and its strategies to meet credit targets and milestones; and nearly all changes result in additional work on the part of the County and/or NTCD to update registrations or to otherwise comply with the adaptations. This persistent potential for change creates a barrier for the County in developing a long-term strategy to meet credit milestones to comply with the TMDL; it also makes it difficult to plan for staff time and resources to manage and administer the LCCP.
4. Challenges associated with Road RAM inspections is a potential barrier to Washoe County meeting credit targets and milestones. The 2018 LCCP Policy Update Project increased winter/spring RAM requirements, and the impacts of the changes are not yet fully understood. Due to winter road conditions, it is often exceedingly difficult to balance weather, roadway safety, road surface conditions, scheduling and Road RAM scores. Additionally, observations of salt-clouds impacting Road RAM scores during winter months is becoming an increasing concern. It may prove perilous to rely on road operations as a method to meet milestones if scheduling, weather impacts, and/or road conditions prevent Washoe County from declaring credits in any given water year.
5. The time to complete credit registrations has decreased since the beginning of the LCCP; however, the total amount of staff time required to administer the LCCP continues to be a barrier for Washoe County. Registrations take multiple iterations to finalize; adaptive management changes consume time (see Barrier #3); scheduling RAMs is an ongoing challenge (see Barrier #4); and tracking, planning, reporting, and funding are persistent necessities for the Program. Even with the support of NTCD, the County is only just able to meet deadlines and

maintain compliance. Staff time is a limited resource at Washoe County, and any efficiencies and simplifications that can be implemented to the LCCP would be beneficial.

## 6 Baseline Discrepancies

The baseline load estimate developed in the 2016 Jurisdictional Baseline Report is refined with each credit registration. During the registration process, refinements will be made to the PLRM baseline inputs to better reflect baseline conditions. These changes are documented in each registration memo. NTCDC maintains a comprehensive baseline load tally as continual refinements are made at the jurisdictional scale. According to that dataset, reflecting all registration through WY2020, Washoe County's total baseline load has increased by 2,189 lb-FSP/yr, or approximately 11 credits, which is equivalent to a relative percent difference of 0.7% (see Table 9). Additionally, Table 9 shows the differences in total phosphorus and total nitrogen. The magnitude of this baseline change is negligible after five years of registrations and refinements; the adjustments will have no impact on Washoe County's future credit targets and milestones. Therefore, the County proposes discontinuing this tracking exercise at the end of the current ILA period.

**Table 7. Baseline Discrepancies**

Pollutant of Concern	2016 Jurisdictional Baseline Report Estimated	Registration Baseline Refined	Baseline Difference	Baseline Difference (Credits)	Baseline Relative Percent Difference
FSP (lb/yr)	290,412	292,601	+2,189	+11	0.7%
Total Phosphorus (lb/yr)	1,228	1,225	-3		-0.2%
Total Nitrogen (lb/yr)	4,722	4,683	-39		-0.8%



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