LANDER COUNTY COMMISSIONERS MEETING
TOWN BOARD OF BATTLE MOUNTAIN & AUSTIN
BOARD OF COUNTY HIGHWAY COMMISSIONERS

July 26, 2018

LANDER COUNTY COURTHOUSE
COMMISSIONERS' CHAMBER
50 STATE ROUTE 305
BATTLE MOUNTAIN, NEVADA

Also Via Teleconference At

AUSTIN COURTHOUSE
COMMISSION OFFICE
122 MAIN STREET
AUSTIN, NEVADA

9:00 A.M Call to Order
Pledge of Allegiance
A Moment of Silence
Lander County Commissioners may break for lunch from 12:00pm to 1:15pm
Any agenda item may be taken out of order, may be combined for consideration by the public body, and items may be pulled or removed from the agenda at any time.
Commissioners Reports on meetings, conferences and seminars attended
Staff Reports on meetings, conferences and seminars attended

Public Comment - For non-agendized items only. *Persons are invited to submit comments in writing and/or attend and make comments on any non- agenda item at the Board meeting if any, and discussion of those comments at the discretion of the Board. All public comment may be limited to three (3) minutes per person, again at the discretion of the Board. Reasonable restrictions may be placed on public comments based upon time, place and manner, but public comment based upon viewpoint may not be restricted.*

CONSENT AGENDA
All matters listed under the consent agenda are considered routine, and may be acted upon by the Board of County Commissioners with one action, without extensive discussion. Any member of the Board or any citizen may request that an item be taken from the consent agenda, discussed and acted upon separately during this meeting. Consent agenda materials are available at the Lander County Clerk' s office for viewing and copies are available for a nominal charge.

*(1) Approval of July 26, 2018 Agenda Notice
*(2) Approval of June 14, 2018 Meeting Minutes
*(3) Approval of June 28, 2018 Meeting Minutes
*(4) Approval of July 12, 2018 Meeting Minutes
*(5) Approval of the Payment of Bills
*(6) Approval of Payroll Change Requests

"Lander County is an Equal Opportunity Provider"

COMMISSIONERS

*(1) Discussion and possible action on whether to accept the Nevada Department of Transportation's (NDOT) upcoming Fiscal Year Work Program, and all other matters properly related thereto.

Public Comment

*(2) Discussion and possible action to approve/disapprove an application for medical marijuana cultivation and production facility licenses within Lander County and to approve the number of licenses to be granted by Lander County, and all other matters properly related thereto.

Public Comment

*(3) Discussion and possible action to create, redesign, and/or update an organizational chart for the Lander County Administrative offices to include all pertinent departments under/or attached thereto; to define positions and duties and to request the Lander County District Attorney to update the Lander County Code to comply with and all actions taken by the Board on the agenda item, and all other matters properly related thereto.

Public Comment

*(4) Discussion and possible action regarding an employment contract for Keith Westengard, and all other matters properly related thereto.

Public Comment

*(5) Discussion and possible action regarding an employment contract for Bartolo Ramos, and all other matters properly related thereto.

Public Comment

*(6) Discussion and possible action to approve/disapprove hiring a part time un-benefitted position at the Battle Mountain Civic Center, and all other matters properly related thereto.

Public Comment

"Lander County is an Equal Opportunity Provider"

*(7) Discussion and possible action to approve/disapprove the Amended Resolution 2018-12 authorizing the County to sell a 2008 Ford F350 Super, VIN 1FDWF37R68EB86930 to Newmont Mining with a fair market value of $15,000.00 pursuant to NRS 332.185, and all other matters properly related thereto.

Public Comment

***CORRESPONDENCE**

*(8) Correspondence/reports/potential upcoming agenda items.

Public Comment

Public Comment - For non-agendized items only. *Persons are invited to submit comments in writing and/or attend and make comments on any non- agenda item at the Board meeting if any, and discussion of those comments at the discretion of the Board. All public comment may be limited to three (3) minutes per person, again at the discretion of the Board. Reasonable restrictions may be placed on public comments based upon time, place and manner, but public comment based upon viewpoint may not be restricted.*

ADJOURN

*Denotes "for possible action". Each such item may be discussed and action taken thereon with information provided at the meeting. Action may be taken according to the "Nevada Open Meeting Law Manual" via a telephone conference call in which a quorum of the Board members is simultaneously linked to one another telephonically.

NOTE: TIMES ARE APPROXIMATE

This is the tentative schedule for the meeting. The Board reserves the right to take items out of order to accomplish business in the most efficient manner. The Board may combine two or more agenda items for consideration. The Board may remove an item from the agenda or delay discussion relating to an item on the agenda at any time.

Notice to persons with disabilities: Members of the public who are disabled and require special assistance or accommodations at the meeting are requested to notify the County Executive Director in writing at the Courthouse, 50 State Route 305, Battle Mountain, Nevada 89820, or call (775) 635-2885 at least one day in advance of the meeting.

NOTICE: Any member of the public that would like to request any supporting material from the meeting, please contact the clerk's office, 50 State Route 305, Battle Mountain, Nevada 89820 (775) 635-5738.

AFFIDAVIT OF POSTING
State of Nevada)
) ss
County of Lander)

Keith Westengard, Lander County Executive Director of said Lander County, Nevada, being duly sworn. says, that on the 20th day of July, 2018, he posted a notice, of which the attached is a copy, at the following places: I) Battle Mountain Civic Center, 2) Battle Mountain Post Office, 3) Lander County Courthouse, 4) Swackhamer's Plaza Bulletin Board, 5) Kingston Community Hall Bulletin Board, and 6) Austin Courthouse in said Lander County, where proceedings are pending.

Keith Westengard, Lander County Executive Director

Subscribed and sworn to before me this 20th day of July 2018.

Witness

Name of Agenda: Lander County Board of Commissioners

Date of Meeting: July 26, 2018

"Lander County is an Equal Opportunity Provider"

Cindy Benson
Lander County Fiscal Officer

LANDER COUNTY COMMISSION MEETING

July 26, 2018

APPROVE

Check #107539

Cindy Benson

Cindy Benson – Fiscal Officer

50 State Route 305 ⋖ ⋗ Battle Mountain, NV 89820
Phone: (775) 635-2573 ⋖ ⋗ Fax: (775) 635-9256

BARTOLO RAMOS

COUNTY OF LANDER

DATE	INVOICE	AMOUNT	REMARKS
07/12/18	REIMBURSEMENT CDL	112.25	7/2/18

CHECK NO 107539 $112.25 **

COUNTY OF LANDER
50 State Route 305
Battle Mountain, NV 89820
(775) 635-2573

WELLS FARGO BANK
BATTLE MOUNTAIN, NV 89820
GENERAL ACCOUNT

No. 107539

94-7074
3212

PAY TO THE ORDER OF

BARTOLO RAMOS

VOID IF NOT CASHED WITHIN 90 DAYS

DATE	CHECK NO.	AMOUNT
07/13/18 **VOID**	107539 **VOID**	$112.25 **VOID**

VOID*******112DOLLARS AND25CENTS***

BARTOLO RAMOS
P.O. BOX 255

AUSTIN NV 89310

NON-NEGOTIABLE

Cindy Benson
Lander County Fiscal Officer

LANDER COUNTY COMMISSION MEETING

July 26, 2018

APPROVE

Check #107544

Cindy Benson

Cindy Benson – Fiscal Officer

50 State Route 305 ⋖ ⋗ Battle Mountain, NV 89820
Phone: (775) 635-2573 ⋖ ⋗ Fax: (775) 635-9256

ST OF NEVADA

COUNTY OF LANDER
DMV & PUBLIC SAFETY

DATE	INVOICE	AMOUNT	REMARKS
06/30/18	WATER BUFFALO	7.00	REGISTRATION FEES

CHECK NO 107544 $7.00 **

COUNTY OF LANDER
50 State Route 305
Battle Mountain, NV 89820
(775) 635-2573

WELLS FARGO BANK
BATTLE MOUNTAIN, NV 89820
GENERAL ACCOUNT

No. 107544

94-7074
3212

VOID IF NOT CASHED WITHIN 90 DAYS

PAY TO THE ORDER OF

ST OF NEVADA

DATE	CHECK NO.	AMOUNT
07/13/18 **VOID**	107544 **VOID**	$7.00 **VOID**

VOID********7DOLLARS AND00CENTS***

ST OF NEVADA
555 WRIGHT WAY

DMV & PUBLIC SAFETY

CARSON CITY NV 89711

VOID

NON-NEGOTIABLE

Cindy Benson
Lander County Fiscal Officer

LANDER COUNTY COMMISSION MEETING

July 26, 2018

APPROVE

Check #107548

Cindy Benson

Cindy Benson – Fiscal Officer

50 State Route 305 ⋖ ⋗ Battle Mountain, NV 89820
Phone: (775) 635-2573 ⋖ ⋗ Fax: (775) 635-9256

WELLS FARGO PAYMENT

COUNTY OF LANDER
CENTER

DATE	INVOICE	AMOUNT	REMARKS
06/30/18	8433/0633	9.29	7/3/18 PENOLA, ANNA
06/30/18	8433/0719	368.67	7/3/18 BUNCH, LESLEY
06/30/18	8433/1705	8.00	7/3/18 BRIGHT, KYLA
06/30/18	8433/1717	18.70	7/3/18 CLARK, ARTHUR III
06/30/18	8433/1721	70.00	7/3/18 ETCHEVERRY, GENE
06/30/18	8433/1739	83.99	7/3/18 ALLAN, JUDIE
06/30/18	8433/2355	2,920.55	7/3/18 SMITH, ROBIN
06/30/18	8433/2582	2,989.30	7/3/18 TOMERA, PAULA
06/30/18	8433/4152	40.46	7/3/18 SCHACT, KIM
06/30/18	8433/4378	1,742.54	7/3/18 WESTENGARD, KEITH
06/30/18	8433/5283	155.46	7/3/18 FULLER, DEONILLA
06/30/18	8433/5533	205.75	7/3/18 SULLIVAN, SADIE
06/30/18	8433/9928	323.71	7/3/18 WAITS, PATSY
06/30/18	8433/9944	578.83	7/3/18 RAMOS, BARTOLO

CHECK NO 107548 $9,515.25 **

COUNTY OF LANDER
50 State Route 305
Battle Mountain, NV 89820
(775) 635-2573

WELLS FARGO BANK
BATTLE MOUNTAIN, NV 89820
GENERAL ACCOUNT

No. 107548

94-7074
3212

VOID IF NOT CASHED WITHIN 90 DAYS

PAY TO THE ORDER OF

WELLS FARGO PAYMENT

DATE	CHECK NO.	AMOUNT
07/13/18 **VOID**	107548 **VOID**	$9,515.25 **VOID**

VOID******9,515DOLLARS AND25CENTS***

WELLS FARGO PAYMENT CENTER
P O BOX 77066

MINNEAPOLIS MN 55480-7766

NON-NEGOTIABLE

Cindy Benson
Lander County Fiscal Officer

LANDER COUNTY COMMISSION MEETING

July 26, 2018

APPROVE

Check #107586

Cindy Benson

Cindy Benson – Fiscal Officer

50 State Route 305 ⋖ ⋗ Battle Mountain, NV 89820
Phone: (775) 635-2573 ⋖ ⋗ Fax: (775) 635-9256

COUNTY OF LANDER

PATSY WAITS

DATE	INVOICE	AMOUNT	REMARKS
07/19/18	1807040009	50.00	7/4/18 AUSTIN EMS RUN

CHECK NO 107586 $50.00 **

COUNTY OF LANDER
50 State Route 305
Battle Mountain, NV 89820
(775) 635-2573

WELLS FARGO BANK
BATTLE MOUNTAIN, NV 89820
GENERAL ACCOUNT

No. 107586

94-7074
3212

VOID IF NOT CASHED
WITHIN 90 DAYS

PAY TO THE ORDER OF

PATSY WAITS

DATE	CHECK NO.	AMOUNT
07/19/18 **VOID**	107586 **VOID**	$50.00 **VOID**

VOID*******50DOLLARS AND00CENTS***

PATSY WAITS
HC 65 BOX 8

AUSTIN NV 89310

Void

NON-NEGOTIABLE

Cindy Benson
Lander County Fiscal Officer

LANDER COUNTY COMMISSION MEETING

July 26, 2018

APPROVE

Check #107564

Cindy Benson

Cindy Benson – Fiscal Officer

50 State Route 305 ⋖ ⋗ Battle Mountain, NV 89820
Phone: (775) 635-2573 ⋖ ⋗ Fax: (775) 635-9256

COUNTY OF LANDER

DEBORAH CARDOZA

DATE	INVOICE	AMOUNT	REMARKS
07/19/18	1807040009	100.00	7/4/18 AUSTIN EMS RUN
07/19/18	1807150009	100.00	7/15/18 AUSTIN EMS RUN

CHECK NO 107564 $200.00 **

COUNTY OF LANDER
50 State Route 305
Battle Mountain, NV 89820
(775) 635-2573

WELLS FARGO BANK
BATTLE MOUNTAIN, NV 89820
GENERAL ACCOUNT

No. 107564

94-7074
3212

VOID IF NOT CASHED WITHIN 90 DAYS

PAY TO THE ORDER OF

DEBORAH CARDOZA

DATE	CHECK NO.	AMOUNT
07/19/18 **VOID**	107564 **VOID**	$200.00 **VOID**

VOID*******200DOLLARS AND00CENTS***

DEBORAH CARDOZA
HC65 BOX 139

AUSTIN NV 89310

VOID

NON-NEGOTIABLE

Cindy Benson
Lander County Fiscal Officer

LANDER COUNTY COMMISSION MEETING

July 26, 2018

APPROVE

Check #107563

Cindy Benson – Fiscal Officer

50 State Route 305 ⋖ ⋗ Battle Mountain, NV 89820
Phone: (775) 635-2573 ⋖ ⋗ Fax: (775) 635-9256

COUNTY OF LANDER

TINA MARIE BISIAUX

DATE	INVOICE	AMOUNT	REMARKS
07/19/18	7/1/18 - 7/15/18	350.00	PATCH CHANGES

CHECK NO 107563 $350.00 **

COUNTY OF LANDER
50 State Route 305
Battle Mountain, NV 89820
(775) 635-2573

WELLS FARGO BANK
BATTLE MOUNTAIN, NV 89820
GENERAL ACCOUNT

No. 107563

94-7074
3212

VOID IF NOT CASHED WITHIN 90 DAYS

PAY TO THE ORDER OF

TINA MARIE BISIAUX

DATE	CHECK NO.	AMOUNT
07/19/18 **VOID**	107563 **VOID**	$350.00 **VOID**

VOID*******350DOLLARS AND00CENTS***

TINA MARIE BISIAUX
P.O. BOX 652

BATTLE MOUNTAIN MV 89820

NON-NEGOTIABLE

LANDER COUNTY COMMISSIONERS MEETING
7/26/2018

Agenda Item Number __1__

THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:
Discussion and possible action on whether to accept the Nevada Department of Transportation's (NDOT) upcoming Fiscal Year Work Program, and all other matters properly related thereto.

Public Comment:

Background: Attached

Recommended Action: Acceptance of the Fiscal Year Work Program

Glover, Murph M <mglover@dot.nv.gov> Wed, May 2, 2018 at 2:25 PM
To: Nilla Fuller <dfuller@landercountynv.org>
Cc: "Bonner, Lee R" <RBonner@dot.nv.gov>

Good afternoon,

Could we please have the verbiage for NDOT's presentation changed to the following:

"Consideration of, discussion and possible acceptance of NDOT's upcoming Fiscal Year Work Program"

Thank you,

Murph Glover | Program Development

From: Nilla Fuller [mailto:dfuller@landercountynv.org]
Sent: Monday, March 19, 2018 11:40 AM
To: Glover, Murph M <mglover@dot.nv.gov>
Subject: Re: Lander County Commission Agenda Request

Thank you. Here is our form as well. Please return it prior to July 3rd to be placed on the July 12 agenda. Thank you.

[Quoted text hidden]

Agenda Request Form
COMMISSION MEETING DATE 7/12/2018

NAME MURPH GLOVER REPRESENTING NEVADA DEPT. OF TRANSPORTATION

ADDRESS _____

PHONE(H) _____ (W) (775) 888-7123 (FAX) _____

WHICH NUMBER SHOULD WE CALL DURING NORMAL BUSINESS HOURS? WORK

WHO WILL BE ATTENDING THE MEETING? SONDRA ROSENBERG

JOB TITLE ASSISTANT DIRECTOR - PLANNING

SPECIFIC REQUEST TO BE PLACED ON THE AGENDA: NDOT'S ANNUAL PRESENTATION OF THE WORK PROGRAM

BACKGROUND INFORMATION: NDOT ANNUALLY PRESENTS UPCOMING PROJECTS ALONG WITH A SUMMARY OF EACH YEAR'S COUNTY CONSULTATION PROCESS.

WHAT ACTION WOULD YOU LIKE THE BOARD TO TAKE TO RESOLF THIS ISSUE? REQUESTING APPROVAL OF THE UPCOMING FISCAL YEAR WORK PROGRAM

ARE THERE ANY COSTS ASSOCIATED WITH YOUR REQUEST? YES ___ NO ✓

AMOUNT: _____

HAS THIS ISSUE BEEN DISCUSSED AT A PRIOR COMMISSION MEETING? YES ✓ NO ___

WHEN? _____

HAS THIS ISSUE BEEN REVIEWED BY AFFECTED DEPT HEADS? YES ✓ NO ___

ALL BACKUP MATERIAL MUST BE PROVIDED WITH AGENDA REQUEST- NOT AT THE MEETING

IS ALL THE BACKUP MATERIAL ATTACHED TO THIS AGENDA REQUEST? YES ___ NO ✓

IF THE ITEM IS A CONTRACT AND/OR AGREEMENT, OR REQUIRES LEGAL REVIEW, IT MUST BE REVIEWED BY THE DISTRICT ATTORNEY'S OFFICE PRIOR TO AGENDA SETTING OR IT WILL NOT GO ON THE AGENDA.

HAS THE DISTRICT ATTORNEY'S OFFICE PROVIDED REQUIRED REVIEW? YES ___ NO ✓

THE COMMISSION RESERVES THE RIGHT TO REJECT OR RECOMMEND TABLING ALL AGENDA REQUESTS FOR INSUFFICIENT INFORMATION.

ALL INFORMATION STATED IS CORRECT AND TRUE TO MY KNOWLEDGE.

SIGNATURE: _____ DATE: 3/19/2018

SAFETY COMMITTEE MEETS THE 2ND & 4TH THURSDAY OF EACH MONTH

Nilla Fuller <dfuller@landercountynv.org>

Lander County Commission Agenda Request

1 message

Glover, Murph M <mglover@dot.nv.gov> Mon, Mar 19, 2018 at 11:37 AM
To: "dfuller@landercountynv.org" <dfuller@landercountynv.org>

Good morning, Ms. Fuller.

Please see below NDOT's request to present to the Lander County Board of Commissioners. The agenda item verbiage is also listed below. We will provide an agenda request form by July 3 and an electronic copy of the presentation as soon as it becomes finalized, hopefully at least a week before the Commission meeting. Could you please verify that this request can be accommodated for the July 12th meeting?

Thank you,

Murph Glover

Government | Tribal Liason Associate

Agenda Item Verbiage: NEVADA DEPARTMENT OF TRANSPORTATION (NDOT) ANNUAL ROAD PROJECTS PRESENTATION (FOR POSSIBLE ACTION) – Consideration of, discussion and possible approval of NDOT's upcoming Fiscal Year Work Program. For discussion and possible action.

LANDER COUNTY

COMMISSION AGENDA REQUEST

March 19, 2018

Dear Ms. Fuller,

Each year the Nevada Department of Transportation is honored to meet with your county commission to present future planning efforts for the statewide transportation program. This is an ongoing effort to stay connected to the needs and concerns of your county.

We request to be scheduled on the July 12, 2018 Commission meeting agenda as close to the beginning of the meeting as possible. There is no request for a time certain agenda item and if acceptable we ask that you hear our agenda item when we arrive. This helps to minimize travel time and staff being away from the office.

NDOT also requests that this be an action item so that the commission may take action on the following two items:

1. **Accept the annual work program**.

If there are specific items you would like us to address please let us know. We look forward to being with you again this year as we work together to create a safe and connected transportation system for the State of Nevada.

Regards,

Lee Bonner | PMP, CSSBB

Government Relations| State Railroad Liason

State of Nevada | Nevada Department of Transportation

O: (775) 888-7122

C: (775)434-4548 |

E: lbonner@dot.nv.gov

Murph Glover

Government | Tribal Liason Associate

State of Nevada | Nevada Department of Transportation

O: (775) 888-7123

C: (775)720-2022

E: mglover@dot.nv.gov

This communication, including any attachments, may contain confidential information and is intended only for the individual or entity to whom it is addressed. Any review, dissemination or copying of this communication by

anyone other than the intended recipient is strictly prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and delete all copies of the original message.

NEVADA DOT
SAFE AND CONNECTED

2018
Lander County Transportation Report

NDOT Mission, Vision, Core Values, and Goals

Our Vision:

To be a leader and partner in delivering effective transportation solutions for a safe and connected Nevada.

Our Mission:

Provide and preserve a transportation system that enhances safety, quality of life and economic development through innovation, environmental stewardship and a dedicated workforce.

Core Values:

- Respect – Treat others with dignity and value their contributions
- Integrity – Do the right thing
- Accountability – Take pride in our work and be accountable for our actions
- Communication – Communicate with transparency and responsiveness
- Teamwork – Foster collaborative and effective partnerships
- Flexibility – Be responsive to changing conditions and open to new ideas

Our Goals:

- Safety first
- Cultivate environmental stewardship
- Efficiently operate and maintain the transportation system in Nevada
- Promote internal and external customer service
- Enhance organization and workforce development

Board of Directors

Mark Hutchison
Lt Governor

Brian Sandoval
Governor

Ron Knecht
State Controller

Frank Martin
District 1

Virginia Valentine
District 1

Len Savage
District 2

Emil "B.J" Almberg
District 3

Senior Staff

Bill Hoffman
Deputy Director

Rudy Malfabon
Director

Tracy Larkin-Thomason
Deputy Director

Dave Gaskin
Deputy Director

Robert Nellis
Administration

Sondra Rosenberg
Planning

Reid Kaiser
Operations

Sean Sever
Communications

Cole Mortensen
Engineering

Mary Martini
District 1

Thor Dyson
District 2

Boyd Ratliff
District 3

Meeting Agenda

Welcome / Introductions

NDOT Update

- Wildlife Vehicle Collisions
- One Nevada Plan
- Interstate 11

County Concerns

Infographics

- Snapshot
- Financials
- Projects

Annual Work Program

- Highlights
- Acceptance

County

2018 Lander County Concerns

Top Concerns:

- Shoulder widening on US 50 at Bob Scott Summit
- Pedestrian safety improvements on SR 305 near the old courthouse

Potential Project Pipeline:

- Update all crosswalks in Lander County
- Pedestrian bridge from the middle school to downtown
- Southern bypass around Battle Mountain connecting SR 305 to I-80
- Wildlife warning signs
- Pavement condition on SR 376

Safety

2016 Crash Fact Sheet

LANDER

NEVADA DOT SAFE AND CONNECTED

2016 Crash Totals

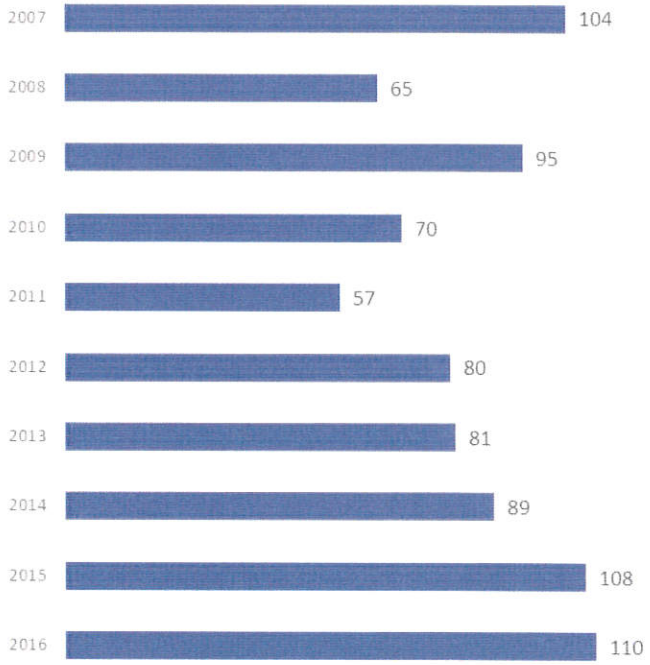
Property Damage Only Crashes	87
Injury Crashes	20
Fatal Crashes	3
Total Crashes	110
Persons Killed	3
Persons Injured	30

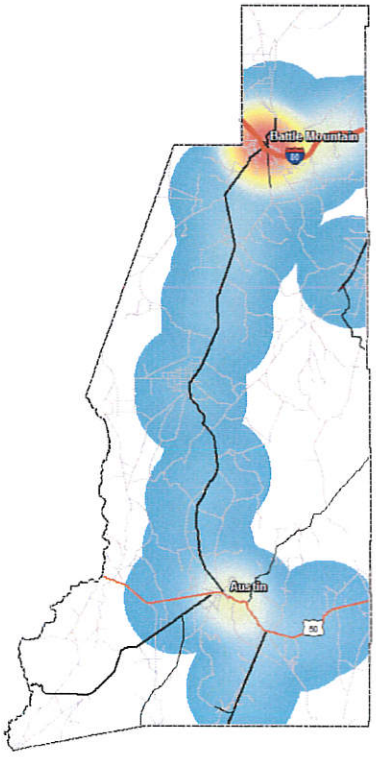
0.2% of Nevada's Total Crashes occurred in Lander.

1.0% of Nevada's Fatal Crashes occurred in Lander.

0.1% of Nevada's Injury Crashes occurred in Lander.

TOTAL CRASHES IN LANDER ANNUALLY





High Crash Density

Low Crash Density

2016 Lander Crash Density Map

Weather, Time, and Day

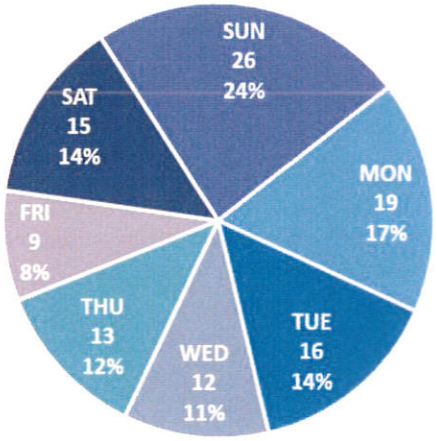
In 2016 the majority of Lander County crashes occurred between the time of 6:00 PM and 9:00 PM.

Sunday and Monday saw the most crashes attributing to 41% of total crashes.

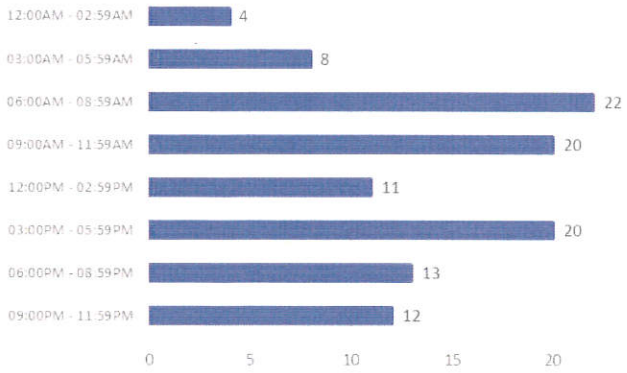
September saw the highest amount of crashes in 2016 with 15, November the least with 4.

On average Lander County experienced a fatal crash once every 122 days.

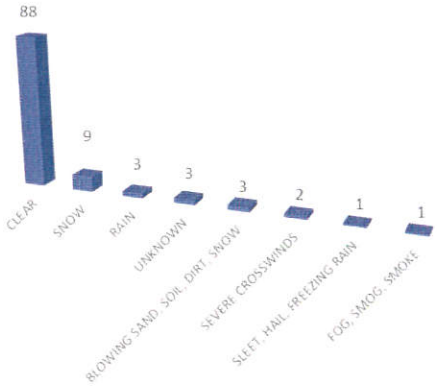
CRASHES BY DAY OF THE WEEK



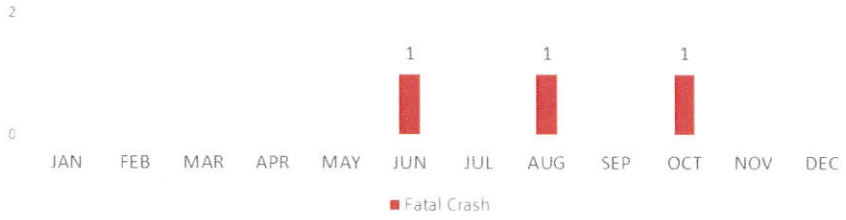
CRASH HOUR RANGE



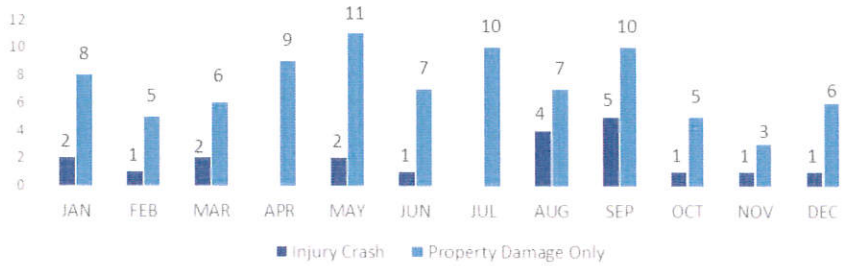
CRASHES BY WEATHER TYPE



FATAL CRASHES BY MONTH



INJURY AND PDO CRASHES BY MONTH

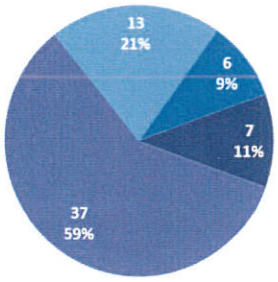


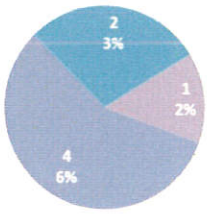
NEVADA DOT SAFE AND CONNECTED

Lander

Drivers and Vehicles

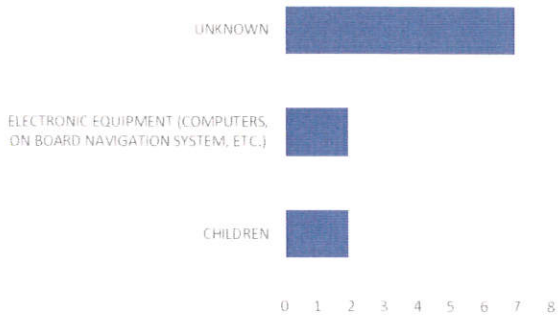
TOP DRIVER FACTORS





- APPARENTLY NORMAL - 59%
- FELL ASLEEP, FAINTED, FATIGUED, ETC. - 21%
- INATTENTION/DISTRACTED - 9%
- OTHER IMPROPER DRIVING - 6%
- HAD BEEN DRINKING - 3%
- DRUG INVOLVEMENT - 2%

DRIVER DISTRACTIONS

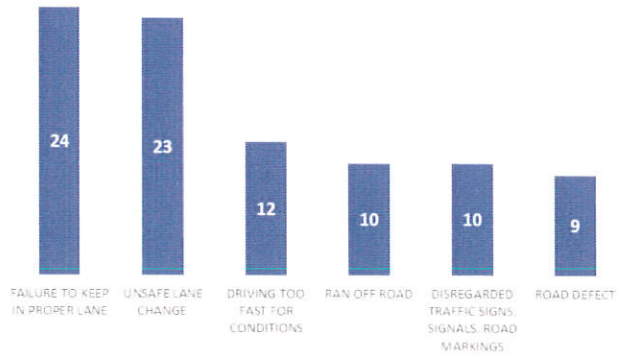


1% of Lander crashes involved a Motorcycle.

64% of Lander crashes involved a Lane Departure.

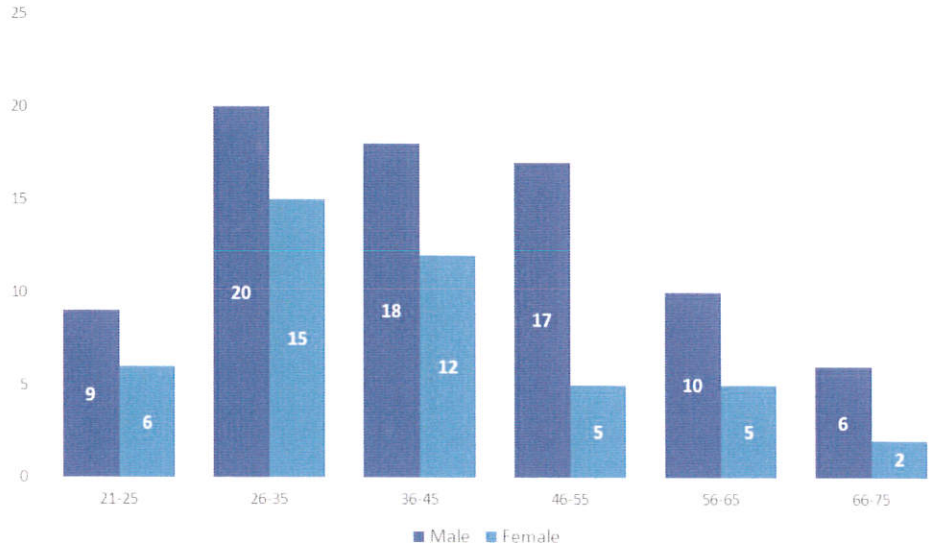
25% of Lander crashes occurred at an Intersection.

TOP CONTRIBUTING FACTORS



Multiple Driver and Contributing factors are allowed per unit.

DRIVER AGE RANGE



NEVADA DOT SAFE AND CONNECTED

Lander

Non-Motorists

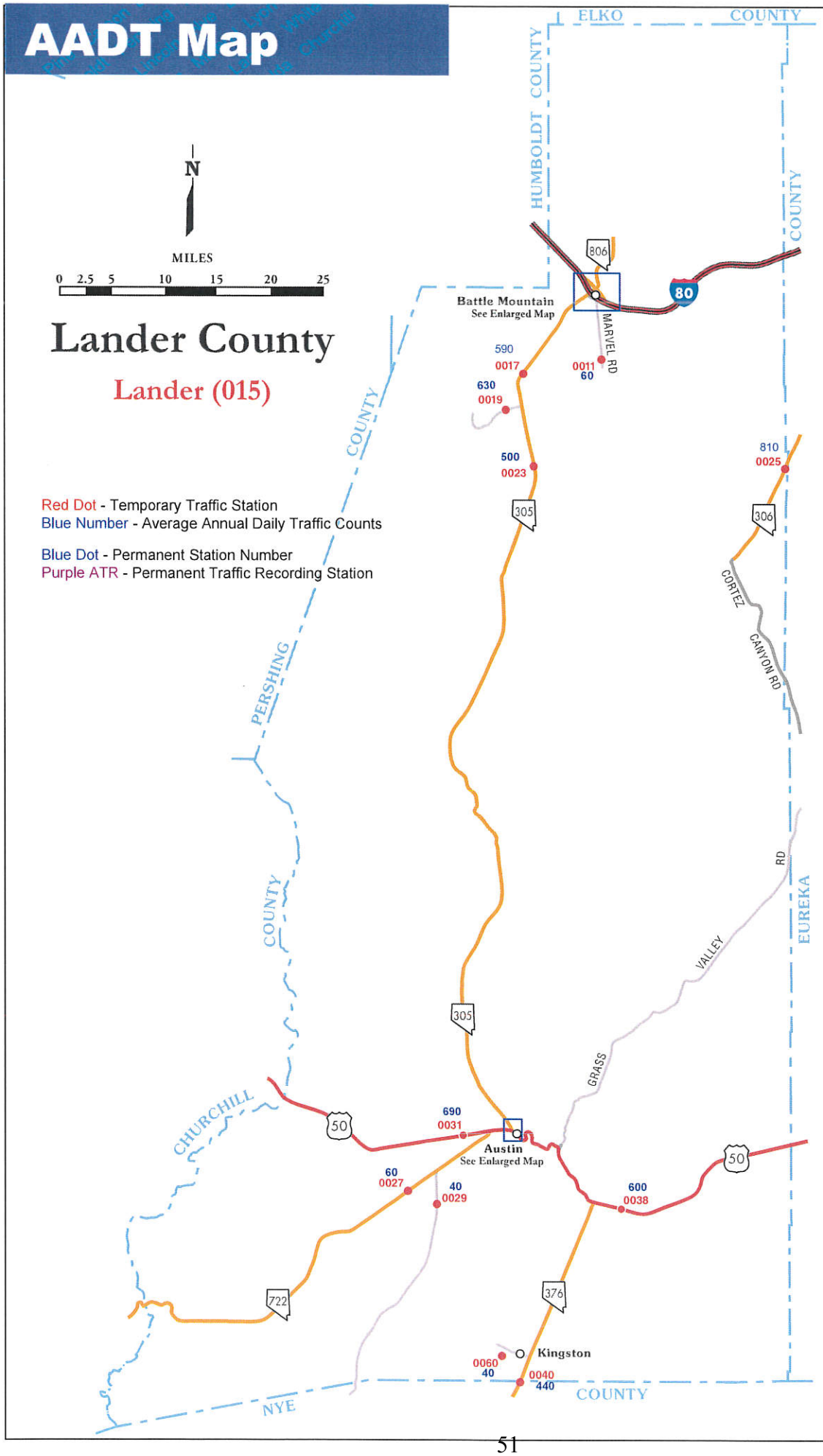
No Non-Motorist crashes reported for this county.

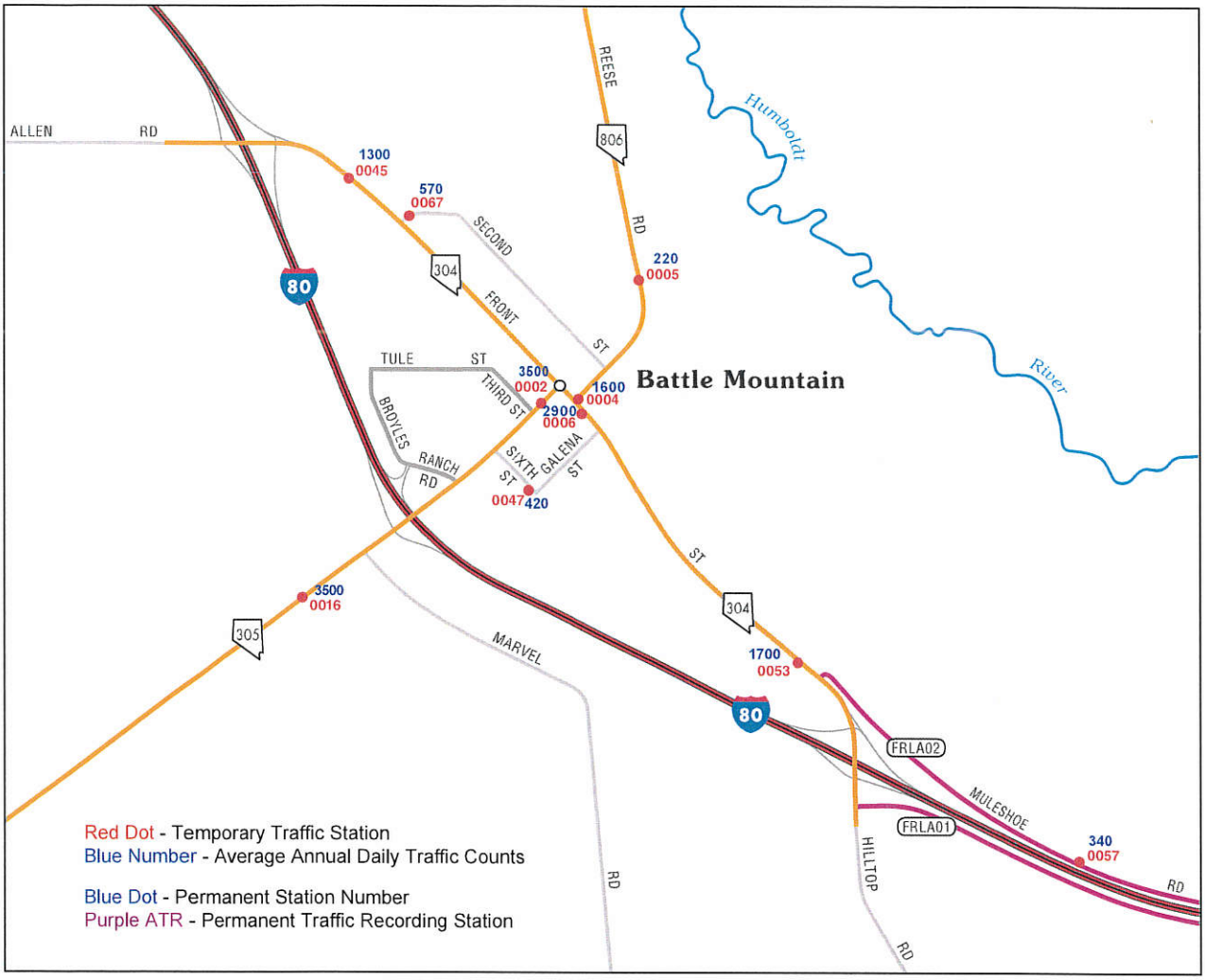
NEVADA DOT SAFE AND CONNECTED

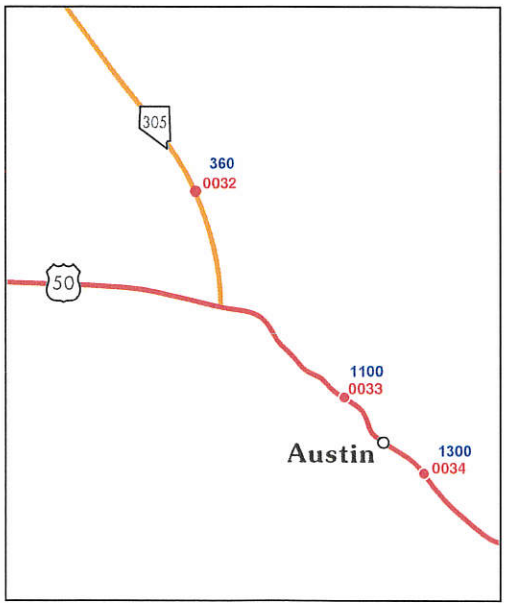
Lander

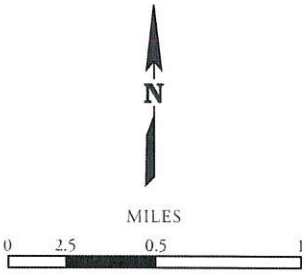
Traffic Counts

AADT Map


N
MILES
0 2.5 5 10 15 20 25
Lander County
Lander (015)
Red Dot - Temporary Traffic Station
Blue Number - Average Annual Daily Traffic Counts
Blue Dot - Permanent Station Number
Purple ATR - Permanent Traffic Recording Station
ELKO COUNTY
HUMBOLDT COUNTY
COUNTY
PERSHING COUNTY
COUNTY
CHURCHILL
NYE COUNTY
EUREKA
806
80
Battle Mountain
See Enlarged Map
MARVEL RD
590
0017
0011
60
630
0019
500
0023
305
810
0025
306
CORTEZ
CANYON RD
GRASS VALLEY RD
305
50
690
0031
Austin
See Enlarged Map
60
0027
40
0029
600
0038
50
722
376
Kingston
0060
40
0040
440







Battle Mountain & Austin

Lander (015)

Red Dot - Temporary Traffic Station
Blue Number - Average Annual Daily Traffic Counts

Blue Dot - Permanent Station Number
Purple ATR - Permanent Traffic Recording Station

Interstate 80 Interchanges

Downtown Battle Mountain 231

Argenta 244

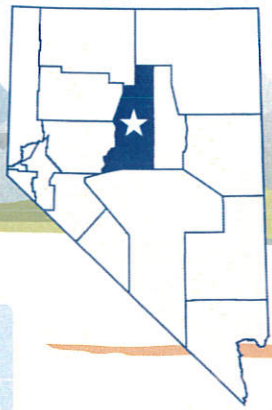
West Battle Mountain 229

East Battle Mountain 233

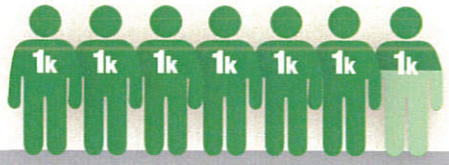
Infographics

NEVADA DOT
SAFE AND CONNECTED

LANDER
— COUNTY —



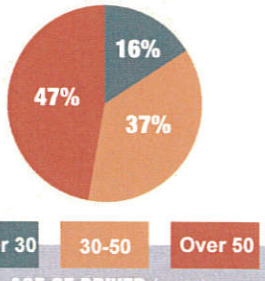
Welcome to NEVADA



POPULATION | 6,358

REGISTERED VEHICLES

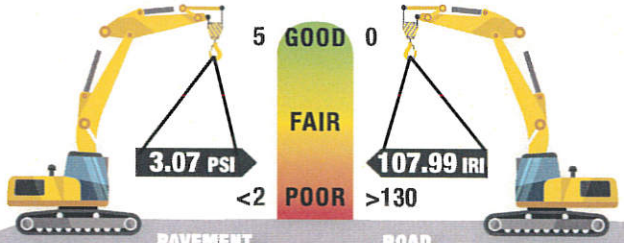
OUTFLOW COMMUTE ← INTERNAL COMMUTE ← INFLOW COMMUTE



AGE OF DRIVER (years)

ANNUAL VEHICLE MILES TRAVELED

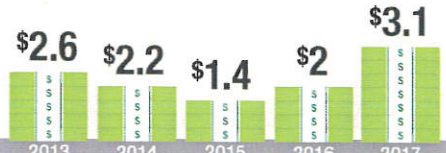
TOTAL TRANSIT RIDES



PAVEMENT CONDITION AVG.

ROAD SMOOTHNESS AVG.

BRIDGES



MAINTENANCE FUNDS (millions)

363 days of **zero** Fatalities
Drive Safe Nevada

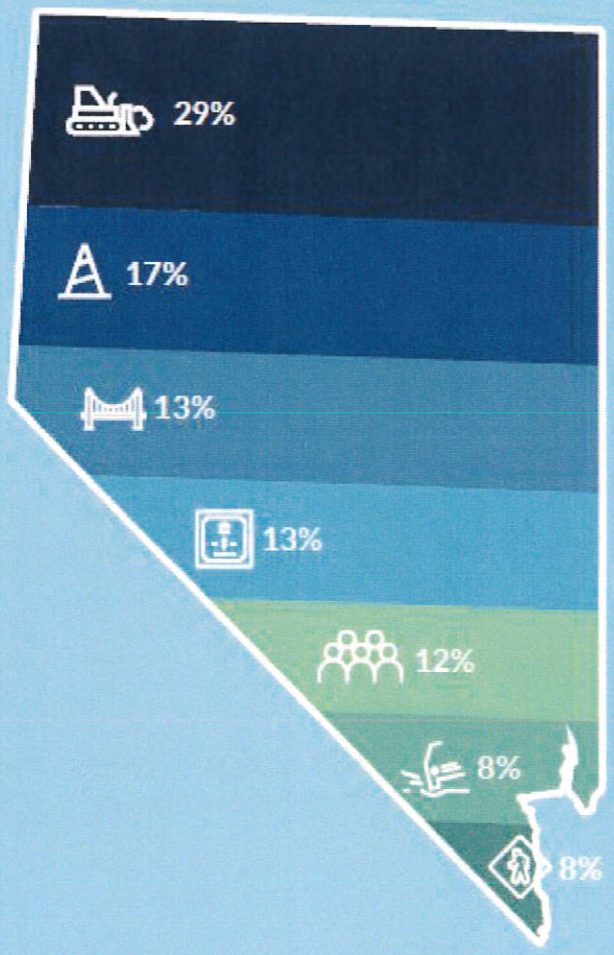
ROAD MILES: 280.19 | LANE MILES: 555.81

FUNDING & SPENDING

FUNDING

Total = $600M

SPENDING



$175M Major Projects/Capacity

$100M Resurfacing, Restoration, & Rehabilitation

$80M Infrastructure & Resources

- $5M - Storm water
- $10M - Hydraulics, routing water off roads
- $11M - Bridges
- $11M - Freight transportation
- $12M - Freeway service, LPA, etc.
- $15M - Traffic measurement
- $15M - Intelligent traffic systems

$79M Bond Debt Obligations

$71M Metropolitan Planning Organization

Las Vegas, Reno, Carson City, Lake Tahoe

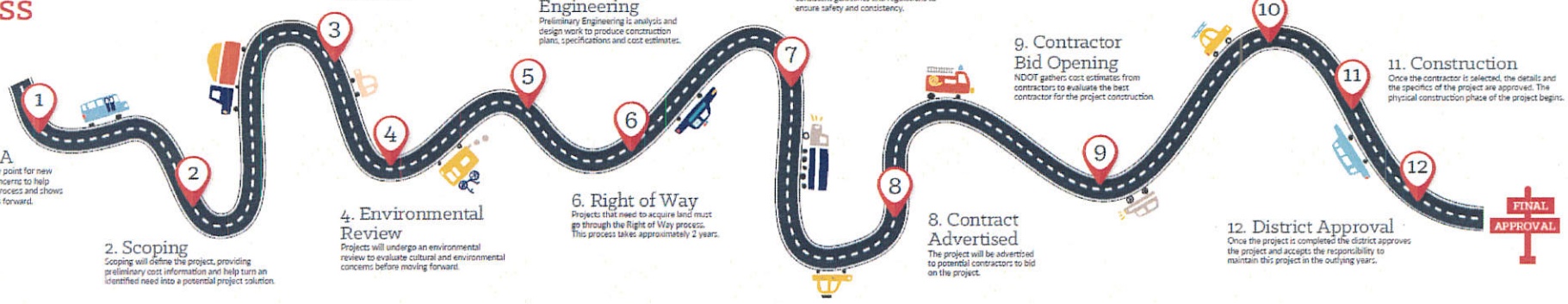
$50M District Maintenance/Operations

$45M Safe & Connected

- $2M - ADA, wheelchair accessibility
- $11M - Bike safety, bike lanes
- $11M - Pedestrian and crosswalk safety
- $21M - Safety improvements, pedestrian fatalities prevention, etc. (Federal Safety Money)

*All budgeting allocation is an estimation, is subject to change, and fluctuates year to year.

12 Step Design Bid Build Project Process



1. PLANA
PLANA is the entry point for new project ideas or concerns to help begin the project process and shows how move projects forward.

2. Scoping
Scoping will define the project, providing preliminary cost information and help turn an identified need into a potential project solution.

3. Project Development Committee
This committee evaluates projects and makes priority based decisions on which projects should move forward.

4. Environmental Review
Projects will undergo an environmental review to evaluate cultural and environmental concerns before moving forward.

5. Preliminary Engineering
Preliminary Engineering is analysis and design work to produce construction plans, specifications and cost estimates.

6. Right of Way
Projects that need to acquire land must go through the Right of Way process. This process takes approximately 2 years.

7. Review of Plans
This is a review of all plans to meet consistent guidelines and regulations to ensure safety and consistency.

8. Contract Advertised
The project will be advertised to potential contractors to bid on the project.

9. Contractor Bid Opening
NDOT gathers cost estimates from contractors to evaluate the best contractor for the project construction.

10. Contract Awarded
When the estimates are in and validated the contract is awarded to the vendor for the project.

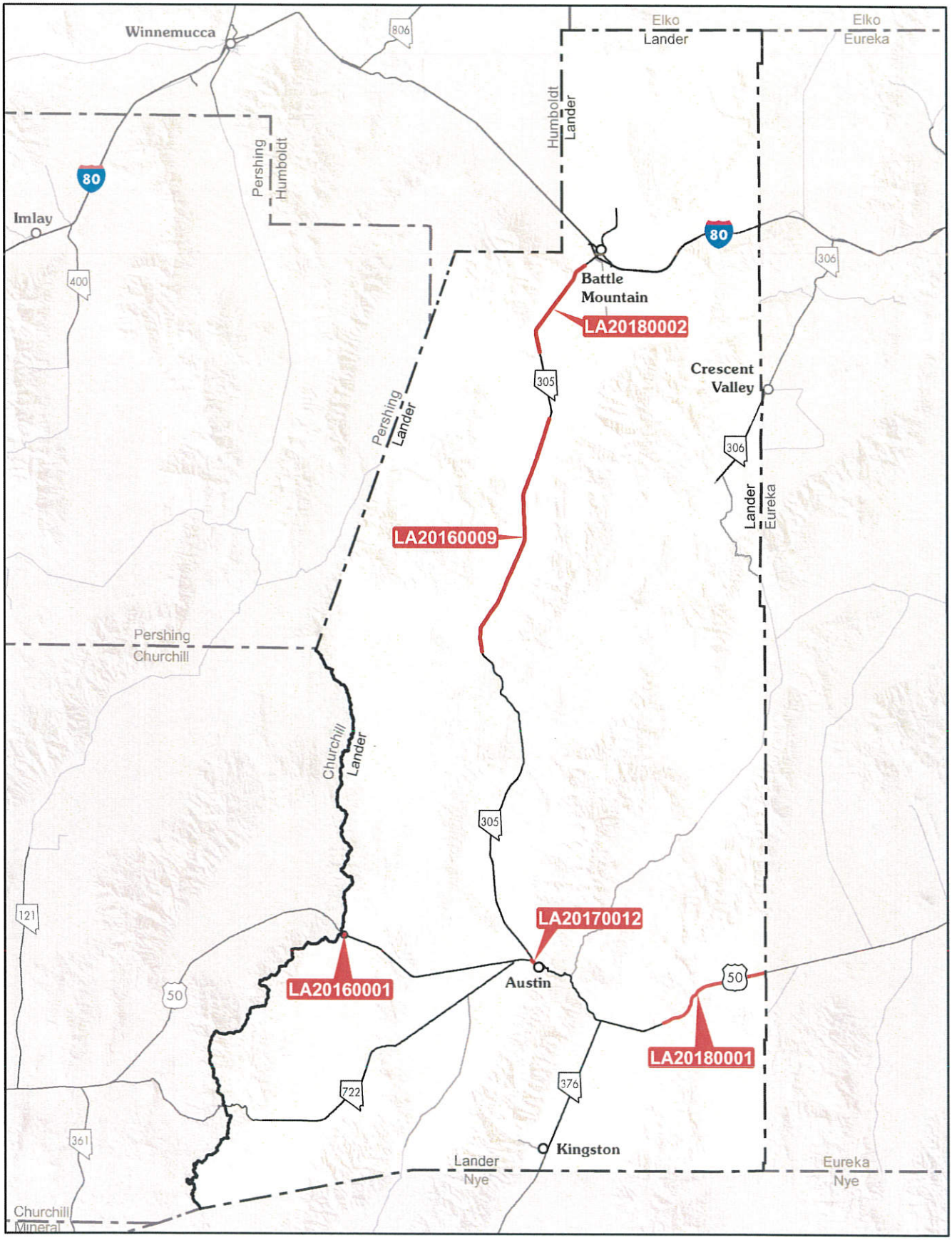
11. Construction
Once the contractor is selected, the details and the specifics of the project are approved. The physical construction phase of the project begins.

12. District Approval
Once the project is completed the district approves the project and accepts the responsibility to maintain this project in the outlying years.

NEVADA DOT
SAFE AND CONNECTED

Work Program

Lander County FFY2019 Work Program



Prepared by:
Nevada Department of Transportation
May, 2018

This Map is for display purposes only.
No liability is assumed for the information displayed hereon.

PROPOSED LANDER COUNTY DRAFT 2019 WORK PROGRAM REPORT

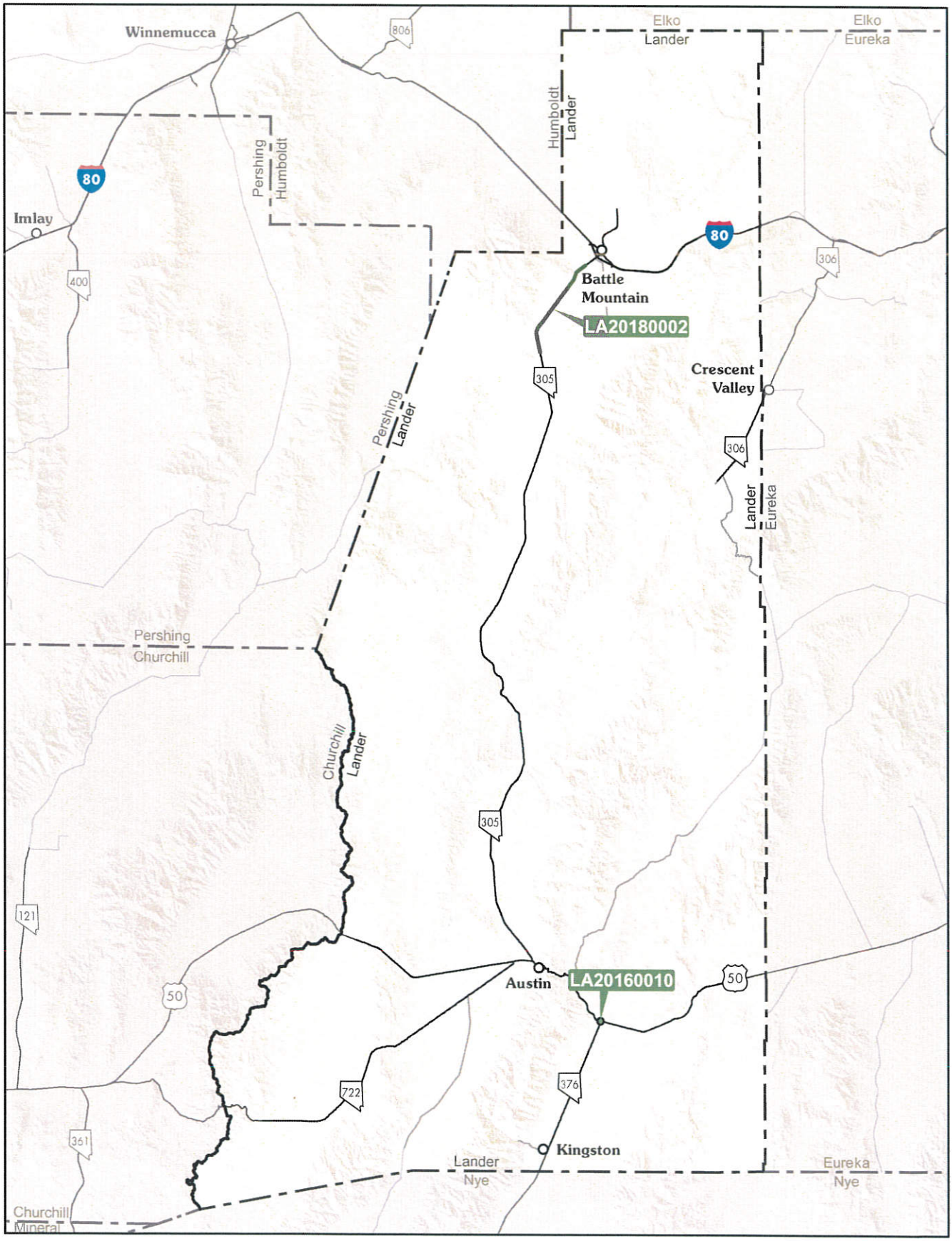
FISCAL YEAR 2019 PROPOSED LANDER COUNTY DRAFT 2019 WORK PROGRAM REPORT

STIP ID	Location/Description (Phase) - Fund Source	PHASE	2019
LA20170012	Title: US 50 Austin Reconstruct Roadway Description: Reconstruct roadway open graded wearing course Location: From 0.52 East Side Of SR 305 to East Side Of Austin of Distance (mile) 1.14 Milepost begins at 23.3 ends at 24.44 Type: Rd Recons/Rehab/Resurf Funding: STATE	CON	$5,375,000
LA20160009	Title: SR 305 Chip Seal between Battle Mountain and Austin Description: Chip and Seal Location: From Half Mile South of Filippini Road to Carico Lake Valley Road of Distance (mile) 27.65 Milepost begins at 69.35 ends at 97 Type: Betterments Funding: STATE	CON	$1,426,903
LA20160001	Title: US 50 RWIS System with CCTV and Radar (Westbound in Dll's Salt and Sand Pile area) Description: RWIS System with CCTV and Radar Location: Nearest Crossstreet: New Pass Mine Road LA MP .05 Type: Betterments Funding: STATE	CON	$190,000
LA20180002	Title: SR 305 Chip Seal South of Battle Mountain Description: Chip Seal Location: From 1 Mile South of Copper Basin to .29 Miles West of 20th Street of Distance (mile) 11 Milepost begins at 105 ends at 116 Type: Betterments Funding: STATE	CON	$53,000
LA20180001	Title: US 50 Flush Seal East of Austin Description: Flush Seal Location: From 4 Miles South of Hickison Petroglyph Recreation Area to LA/EU County Line of Distance (mile) 13 Milepost begins at 44 ends at 57 Type: Betterments Funding: STATE	CON	$38,585
LA20170012	Title: US 50 Austin Reconstruct Roadway Description: Reconstruct roadway open graded wearing course Location: From 0.52 East Side Of SR 305 to East Side Of Austin of Distance (mile) 1.14 Milepost begins at 23.3 ends at 24.44 Type: Rd Recons/Rehab/Resurf Funding: STATE	ROW	$15,000

FISCAL YEAR 2020 -2022 PROPOSED LANDER COUNTY DRAFT 2019 WORK PROGRAM REPORT

STIP ID	Location/Description (Phase) - Fund Source	PHASE	2020	2021	2022
		TOTAL	$7,098,488		

Lander County FFY2020-22 Work Program



Prepared by:
Nevada Department of Transportation
May, 2018

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No liability is assumed for the information displayed hereon.

FISCAL YEAR 2020 -2022 PROPOSED LANDER COUNTY DRAFT 2019 WORK PROGRAM REPORT

STIP ID	Location/Description (Phase) - Fund Source	PHASE	2020	2021	2022
LA20180002	Title: SR 305 Chip Seal South of Battle Mountain Description: Chip Seal Location: From 1 Mile South of Copper Basin to .29 Miles West of 20th Street of Distance (mile) 11 Milepost begins at 105 ends at 116 Type: Betterments Funding: STATE	CON	$186,000	$0	$0
LA20160010	Title: US 50 Relocation of Chain Sign South East of Austin Description: Relocate & Convert 1 "When Flashing" chain sign Location: Nearest Crossstreet: SR 376 LA MP 35.3 Type: Betterments Funding: STATE	CON	$25,000	$0	$0
	TOTAL		$211,000	$0	$0

NEVADA DOT

SAFE AND CONNECTED

Thank you for allowing the Nevada Department of Transportation to engage with your commissioners, county staff and citizens.

LANDER COUNTY COMMISSIONERS MEETING
7/26/2018

Agenda Item Number __2__

THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:
Discussion and possible action to approve/disapprove an application for medical marijuana cultivtion and production facility licenses within Lander County and to approve the number of licenses to be granted by Lander County, and all other matters properly related thereto.

Public Comment:

Background: Application will be available at the meeting, provided by the DA.

Recommended Action: Approval of the application for the Cultivation of Marijuana within Lander County.

LANDER COUNTY COMMISSIONERS MEETING
7/26/2018

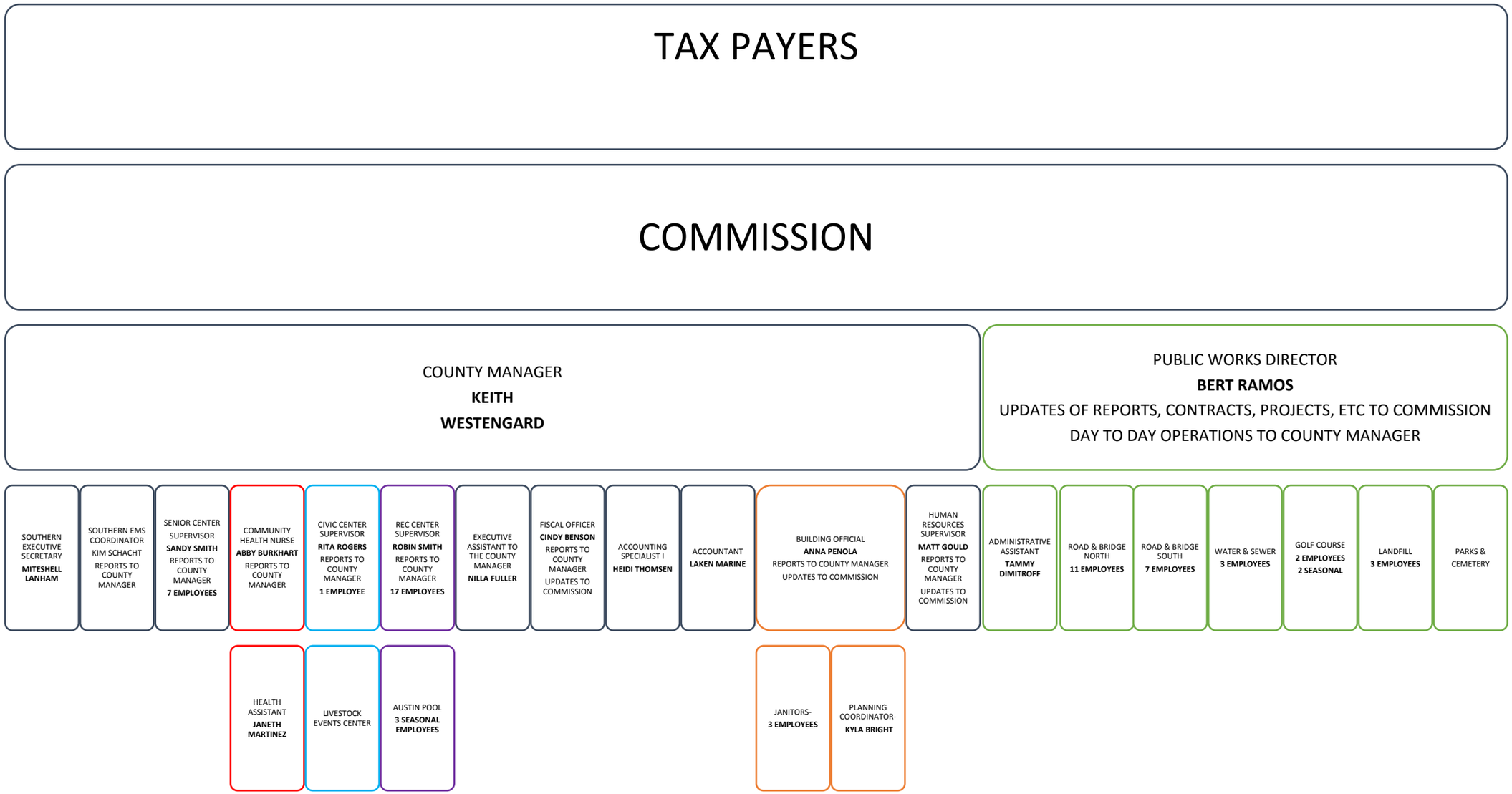
Agenda Item Number __3__

THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:
Discussion and possible action to create, redesign, and/or update an organizational chart for the Lander County Administrative offices to include all pertinent departments under/or attached thereto; to define positions and duties and to request the Lander County District Attorney to update the Lander County Code to comply with and all actions taken by the board on the agenda item, and all other matters properly related thereto.

Public Comment:

Background:

Recommended Action:


TAX PAYERS
COMMISSION
COUNTY MANAGER
KEITH
WESTENGARD
PUBLIC WORKS DIRECTOR
BERT RAMOS
UPDATES OF REPORTS, CONTRACTS, PROJECTS, ETC TO COMMISSION
DAY TO DAY OPERATIONS TO COUNTY MANAGER
SOUTHERN EXECUTIVE SECRETARY
MITESHELL LANHAM
SOUTHERN EMS COORDINATOR
KIM SCHACHT
REPORTS TO COUNTY MANAGER
SENIOR CENTER SUPERVISOR
SANDY SMITH
REPORTS TO COUNTY MANAGER
7 EMPLOYEES
COMMUNITY HEALTH NURSE
ABBY BURKHART
REPORTS TO COUNTY MANAGER
CIVIC CENTER SUPERVISOR
RITA ROGERS
REPORTS TO COUNTY MANAGER
1 EMPLOYEE
REC CENTER SUPERVISOR
ROBIN SMITH
REPORTS TO COUNTY MANAGER
17 EMPLOYEES
EXECUTIVE ASSISTANT TO THE COUNTY MANAGER
NILLA FULLER
FISCAL OFFICER
CINDY BENSON
REPORTS TO COUNTY MANAGER
UPDATES TO COMMISSION
ACCOUNTING SPECIALIST I
HEIDI THOMSEN
ACCOUNTANT
LAKEN MARINE
BUILDING OFFICIAL
ANNA PENOLA
REPORTS TO COUNTY MANAGER
UPDATES TO COMMISSION
HUMAN RESOURCES SUPERVISOR
MATT GOULD
REPORTS TO COUNTY MANAGER
UPDATES TO COMMISSION
ADMINISTRATIVE ASSISTANT
TAMMY DIMITROFF
ROAD & BRIDGE NORTH
11 EMPLOYEES
ROAD & BRIDGE SOUTH
7 EMPLOYEES
WATER & SEWER
3 EMPLOYEES
GOLF COURSE
2 EMPLOYEES
2 SEASONAL
LANDFILL
3 EMPLOYEES
PARKS & CEMETERY
HEALTH ASSISTANT
JANETH MARTINEZ
LIVESTOCK EVENTS CENTER
AUSTIN POOL
3 SEASONAL EMPLOYEES
JANITORS-
3 EMPLOYEES
PLANNING COORDINATOR-
KYLA BRIGHT

LANDER COUNTY COMMISSIONERS MEETING
7/26/2018

Agenda Item Number __4__

THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:
Discussion and possible action regarding an employment contract for Keith Westengard, and all other matters properly related thereto.

Public Comment:

Background:

Recommended Action:

LANDER COUNTY COMMISSIONERS MEETING
7/26/2018

Agenda Item Number __5__

THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:
Discussion and possible action regarding an employment contract for Bartolo Ramos, and all other matters properly related thereto.

Public Comment:

Background: Contract attached

Recommended Action:

LANDER COUNTY COMMISSIONERS MEETING
7/26/2018

Agenda Item Number __6__

THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:
Discussion and possible action to approve/disapprove hiring a part time un-benefitted position at the Battle Mountain Civic Center, and all other matters properly related thereto.

Public Comment:

Background: Estimation of salary and job description attached.

Recommended Action: Approval of the part time un-benefitted position of a civic center assistant manager

Civic Center- Assistant Manager- Part Time Position-

up to 19 hours weekly @ $13.00 hourly= **$12,844.00**.

This position has existed prior but was not budgeted for FY 18/19, but due to re-organization will be needed to help cover evenings and weekends at the Battle Mountain Civic Center.

LANDER COUNTY
Job Description
ASSISTANT TO THE CIVIC CENTER MANAGER
Lander County Civic Center

Grade:
Classification: Assistant to the Civic Center Manager
Position: Part-Time, $13.00/hour, Non-benefitted
Probationary Status: 12 months
Position Status: FLSA Exempt

DEFINITION:
Works under the direct supervision of the Lander County Civic Center Manager. Assist in the daily activities of the Lander County Civic Center.

ESSENTIAL DUTIES AND TASKS: The duties listed below are examples of the work typically performed by employees in this class. An employee may be assigned all duties and may be assigned duties that are not listed below.

1. Office Coverage
2. General Office Duties
3. Customer Service including some on-call customer support
4. Marquee updates
5. Accounts payable/received
6. Event coordination including scheduling
7. Facility usage contracts
8. Key check-in/check-out
9. Mail distribution
10. Contractor/maintenance interactions
11. May be assigned various projects, including research, report writing and/or other projects that may be assigned by the Civic Center Director
12. Audio/video set up
13. Minor maintenance including minor equipment care and janitorial duties as assigned
14. Event coordination
15. Janitorial Duties as assigned

SKILLS AND REQUIREMENTS:
The Assistant to the Civic Center Manager must have strong computer skills and a good aptitude for learning new technologies and programs. This position requires good customer service, communication and organizational skills. This position does require weekend and even work along with on-call duties. Bilingual is a plus but is not required.

PHYSICAL REQUIREMENTS:

1. Must be able to perform medium work, exerting up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 10 pounds of force constantly to lift object.
2. Work frequently standing, using hands to finger, handle or feel and reaching with hands and arms and occasionally requires walking, sitting, crouching or crawling, pushing or pulling, lifting and repetitive motions.
3. Visual acuity is required for the ability to adjust focus.
4. Vocal communication is required for expressing or exchanging ideas by means of the spoken word.
5. Hearing is required to perceive information at normal spoken work levels and to receive detailed information through oral communications and/or to make fine distinctions in sound.
6. Work requires preparing and analyzing written or computer data, visual inspection including small defects and/or small parts, use of measuring devices, operating motor vehicles or equipment and observing general surroundings and activities.
7. Weekend and on-call duties may be required.

EDUCATION:
High school diploma or equivalent.

PRE-EMPLOYMENT PHYSICAL:
A pre-employment physical and drug screen is required.

WORKING CONDITIONS

The work environment characteristic described here are representative of those an employee encounters while performing the essential functions of the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Work is generally in a quiet, climate controlled office. Some exposure may be necessary in noisy locations. Work occasionally requires working near moving mechanical parts, working in high, precarious places, exposure to outdoor weather conditions, exposure to the risk of electrical shock and exposure to universal Precautions. Employee may be required to wear specialized personal protective equipment.

Date Approved/Amended:

Nothing in this job description creates any contractual relationship between Lander County and Applicant/Employee.
Lander County is an equal opportunity employer.
Lander County is a drug free work place.

A copy of this job description was received by _____ this _____

day of _____, 20____.

Signed:_____

LANDER COUNTY COMMISSIONERS MEETING
7/26/2018

Agenda Item Number __7__

THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:
Discussion and possible action to approve/disapprove the Amended Resolution 2018-12 authorizing the County to sell a 2008 Ford F350 Super, VIN 1FDWF37R68EB86930 to Newmont Mining with a fair market value of $15,000.00 pursuant to NRS 332.185, and all other matters properly related thereto.

Public Comment:

Background: Amended Resolution 2018-12

Recommended Action: Approval of the amended resolution 2018-12

AMENDED RESOLUTION NO. 2018-12

Of The Lander County Board of Commissioners

AN AMENDED RESOLUTION DIRECTING THE SALE OF PERSONAL PROPERTY OF A PUBLIC ENTITY

WHEREAS, Nevada Revised Statute 332.185 states that personal property may be sold if the property is no longer required for public use and deems such action desirable and in the best interests of the local government;

NOW, THEREFORE BE IT RESOLVED, the Lander County Board of Commissioners does hereby authorize the sale of a 2008 Ford F350 Super, VIN 1FDWF37R68EB86930 to Newmont Mining in a fair market value amount of $15,000.00;

BE IT FURTHER RESOLVED, the Lander County Board of Commissioners does hereby direct the funds to be allocated to the Lander County Fund 001-000-34060.

PASSED AND ADOPTED this 26th day of July, 2018.

THOSE VOTING AYE: Commissioner_____

Commissioner_____

Commissioner_____

Commissioner_____

Commissioner_____

THOSE VOTING NAY: Commissioner_____

THOSE ABSENT: Commissioner_____

_____

Doug Mills, Chair
Lander County Board of Commissioners

APPROVED AS TO FORM AND LEGALITY,

ATTEST: _____
SADIE SULLIVAN, County Clerk and Ex-Officio
Clerk of the Board of Commissioners of
Lander County, Nevada

_____
THEODORE C. HERRERA
Lander County District Attorney

LANDER COUNTY COMMISSIONERS MEETING
7/26/2018

Agenda Item Number __8__

THE REQUESTED ACTION OF THE LANDER COUNTY COMMISSION IS:
Correspondence/reports/potential upcoming agenda items.

Public Comment:

Background:

Recommended Action:

1. Monthly Reports to Lander County Commissioners. June, 2018.
2. State of Nevada. Governor's Office of Energy. ARN 14-0312G, McGinness Hills Phase II. Annual Compliance Report 2018.
3. State of Nevada. Department of Conservation & Natural Resources. Notice of Proposed Action by the State of Nevada. Klondex Gold & Silver Mining Company.
4. State of Nevada. Department of Conservation & Natural Resources. Notice of Decision and Issuance of Renewed Permit and Factsheet. Cortez Hills Project. Eureka and Lander Counties, Nevada. Nevada Water Pollution Control Permit NEV2007106.

MONTHLY REPORTS TO LANDER COUNTY COMMISSIONERS

JUNE 2018

1) **LANDER COUNTY CLERK – MONIES COLLECTED FOR THE MONTH OF JUNE 2018**

2) **AUSTIN JUSTICE OF THE PEACE – MONIES COLLECTED FOR THE MONTH OF JUNE 2018**

3) **ARGENTA JUSTICE COURT – FINES/FORFEITS FOR THE MONTH OF JUNE 2018**

4) **LANDER COUNTY RECORDER – TOTAL AMOUNT REMITTED TO TREASURER FOR THE MONTH OF JUNE 2018**

5) **LANDER COUNTY TREASURER – TECHNOLOGY FEES FOR THE MONTH OF JUNE 2018**

Lander County Clerk's Office

Monies Collected for the Month of:

JUNE 2018

ACCOUNT	AMOUNT
TOTAL STATE FEES	$ 1,937.00
TOTAL COUNTY FEES	$ 1,790.50
TOTAL LAW LIBRARY FUND	$ 180.00
TOTAL DOMESTIC VIOLENCE	$ 250.00
TOTAL LEGAL AID FUND	$ 179.00
TOTAL DRUG TEST FEES	$ 500.00
TOTAL MONIES COLLECTED FOR THE MONTH OF JUNE 2018	**$ 4,836.50**

Sadie Sullivan

LANDER COUNTY CLERK

Clerk's Report to Auditor of Costs and Fees Collected

Approved by State Board of Accounts for LANDER County - 2018

To Auditor of LANDER County, NEVADA
Collecting for Period: 05/31/2018 thru 06/28/2018

Account	Prior Collections	Collections This Period	Year To Date Collections
6I AA FEE - GENETIC MARKER ANALYSIS	2,286.00	298.00	2,584.00
6I AA FEE - JUSTICE #085-32003	5,362.00	721.00	6,083.00
6I AA FEE - JUVENILE #286-32006	1,532.00	206.00	1,738.00
6I AA FEE - STATE (A #090-32005	25,404.94	3,629.06	29,034.00
6I AA FEE - STATE (G #090-000-32013	3,830.00	515.00	4,345.00
6I BAIL FORFEITURES #001-35030	50,415.00	6,625.00	57,040.00
6I BAIL/BOND PROCESSING FEE	37.50	0.00	37.50
6I BOND FILING FEE VICTIMS OF CRIME	50.00	0.00	50.00
6I CIVIL FEES	56.25	0.00	56.25
6I CIVIL FEES - COURT ACCOUNT/	31.25	0.00	31.25
6I COUNTY FINES/FORF #001-35030	3,475.00	165.00	3,640.00
6I DEPARTMENT OF WILDLIFE - COUNTY	400.00	0.00	400.00
6I DEPARTMENT OF WILDLIFE CIVIL FEES	720.00	0.00	720.00
6I DOMESTIC VIOLENCE FEE	0.00	0.00	0.00
6I DUI SPECIALTY COURT FEE (AOC)	0.00	0.00	0.00
6I EPAYMENT CONVENIENCE FEE	2,048.89	302.20	2,351.09
6I FACILITY ASSESSME #285-34201	7,681.00	1,011.94	8,692.94
6I FELONY/GROSS MISD FORF - SPECIALTY CO	0.00	0.00	0.00
6I FELONY/GROSS MISD FORF - VICTIMS OF C	0.00	0.00	0.00
6I FINE - STATE OF N #090-35030	135.00	0.00	135.00
6I FINE -LANDER COUN #090-35030	0.00	0.00	0.00
6I LC98-3 OTHER #01-32009	20.00	0.00	20.00
6I MISCELLANEOUS FEE #001-000-38080	61.15	0.00	61.15
6I NON SUFFICIENT FUNDS	30.00	0.00	30.00
6I NRS 4.065 (SB#62) #090-32015	2.00	0.00	2.00
6I OVERPAYMENTS TO THE COUNTY	6.00	1.00	7.00
6I SPECIALTY COURT F #090-32207	5,390.00	709.50	6,099.50
6I SUBSTANCE ABUSE FEE (CHEMICAL FEE)	0.00	0.00	0.00
Totals:	108,973.98	14,183.70	123,157.68

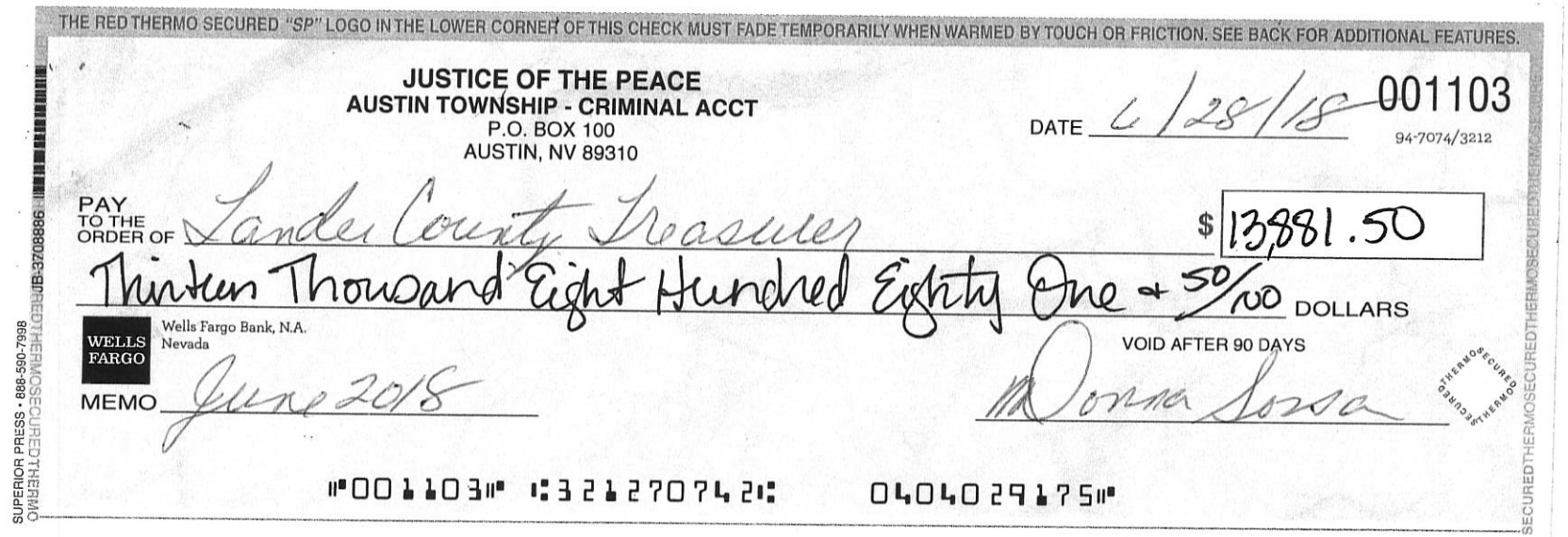
State of NEVADA LANDER County, SS:

I SWEAR THAT THE ABOVE IS A TRUE AND CORRECT STATEMENT OF ALL COSTS AND FEES BELONGING TO THE ABOVE NAMED COUNTY COLLECTED BY ME FOR THE PERIOD SHOWN.

Kim Bogath

CLERK OF THE AUSTIN JUSTICE COURT COURT

FILED
2018 JUL -2 AM 11:46
LANDER COUNTY CLERK



THE RED THERMO SECURED "SP" LOGO IN THE LOWER CORNER OF THIS CHECK MUST FADE TEMPORARILY WHEN WARMED BY TOUCH OR FRICTION. SEE BACK FOR ADDITIONAL FEATURES.

JUSTICE OF THE PEACE
AUSTIN TOWNSHIP - CRIMINAL ACCT
P.O. BOX 100
AUSTIN, NV 89310

DATE 6/28/18 001103
94-7074/3212

PAY TO THE ORDER OF Lander County Treasurer $ 13,881.50

Thirteen Thousand Eight Hundred Eighty One & 50/100 DOLLARS

WELLS FARGO Wells Fargo Bank, N.A. Nevada

VOID AFTER 90 DAYS

MEMO June 2018

Donna Sossa

⑈001103⑈ ⑆321270742⑆ 0404029175⑈

SUPERIOR PRESS • 888-590-7998 SECURED THERMO RED UB-3708886

SECURED THERMO SECURED THERMO SECURED THERMO SECURED THERMO SECURED

FILED

2018 JUL -2 AM 11:4[illegible]

LANDER COUNTY CLERK

ARGENTA JUSTICE COURT
MONTHLY FINANCIAL STATEMENT

I, Max W. Bunch, JUSTICE OF THE PEACE OF ARGENTA TOWNSHIP, LANDER COUNTY, NEVADA, DO HEREBY SWEAR, UNDER OATH, THAT THE FOLLOWING IS A TRUE AND CORRECT ACCOUNTING OF ALL FEES RECEIVED BY ME FOR THE MONTH ENDING JUNE, 2018.

WHISLER	(WEDDING)	$ 70.00
KNOPP	(WEDDING)	$ 70.00
CARDENAS	(WEDDING)	$ 70.00
DALZELL	(WEDDING)	$ 70.00
TOTAL		$ 280.00

MAX W. BUNCH
JUSTICE OF THE PEACE

State of Nevada
County of Lander

SUBSCRIBED AND SWORN TO BEFORE ME
THIS 2nd, DAY OF July, 2018

NOTARY PUBLIC

JEANNE FALZONE
NOTARY PUBLIC
STATE OF NEVADA
Appt. No. 15-2808-10
My Appt. Expires Aug. 26, 2019

End Of Period Listing - Actual
ARGENTA JUSTICE COURT
From 05/31/2018 14:24:03.95
To 06/29/2018 14:57:28.87

Disbursed Total

FINES & FEES MONTH OF JUNE 2018 28,303.00

Account	Payee Name	Check Number	Check Status Code	Disbursed Amount	Number of Cases
6H AA FEE - STATE (AOC)	LANDER COUNTY TREASURER	N/A	N/A	5,701.00	175
6H AA FEE - JUSTICE	LANDER COUNTY TREASURER	N/A	N/A	1,302.00	174
6H AA FEE - JUVENILE	LANDER COUNTY TREASURER	N/A	N/A	372.00	174
6H AA FEE - STATE (GENERAL)	LANDER COUNTY TREASURER	N/A	N/A	920.00	173
6H AA FEE - GENETIC MARKER ANALYSIS	LANDER COUNTY TREASURER	N/A	N/A	552.00	173
6H BAIL/BOND PROCESSING FEE BOND FEES	LANDER COUNTY TREASURER	N/A	N/A	75.00	4
6H CIVIL FEES	LANDER COUNTY TREASURER	N/A	N/A	603.75	17
6H CIVIL FEES - COURT ACCOUNT	LANDER COUNTY TREASURER	N/A	N/A	386.00	21
6H FACSIMILE FEES	LANDER COUNTY TREASURER	N/A	N/A	479.25	0
6H COUNTY FINES/FORFEITURES	LANDER COUNTY TREASURER	N/A	N/A	5,636.00	19
6H FACILITY ASSESSMENT FEE	LANDER COUNTY TREASURER	N/A	N/A	1,860.00	174
6H LC98-3 OTHER	LANDER COUNTY TREASURER	N/A	N/A	160.00	16
6H MARRIAGE FEE - STATE	LANDER COUNTY TREASURER	N/A	N/A	25.00	0
6H SUBSTANCE ABUSE FEE (CHEMICAL FEE)	LANDER COUNTY TREASURER	N/A	N/A	120.00	2
6H NRS 4.065 (SB#62)	LANDER COUNTY TREASURER	N/A	N/A	16.00	16
6H SPECIALTY COURT FEE (MISD)	LANDER COUNTY TREASURER	N/A	N/A	1,302.00	174
6H DUI SPECIALTY COURT FEE (AOC)	LANDER COUNTY TREASURER	N/A	N/A	200.00	2
6H STATE FORFEITURES	LANDER COUNTY TREASURER	N/A	N/A	8,493.00	162
6H BOND FILING FEE VICTIMS OF CRIME	LANDER COUNTY TREASURER	N/A	N/A	100.00	4

** End of Report ***

FILED
2018 JUL -2 AM 8:25
LANDER COUNTY CLERK

STATE OF NEVADA
COUNTY OF LANDER

MAX W. BUNCH, Justice of the Peace of Argenta Township, Lander County, Nevada, being first duly sworn deposes and says:
That all causes and matters heretofore submitted to him have been decided.
That since filing my last report the above fines have been collected, which are being submitted to the Treasurer of Lander County.

Subscribed and sworn to before me this 29th day of June, 2018.

Justice of the Peace

Lander County Recorder
Lesley L Bunch
50 State Route 305
Battle Mountain, NV 89820

FILED
2018 JUL -2 AM 9:0
LANDER COUNTY CLERK

MONTHLY REPORT

The following fees were collected for the period of June 1, 2018 thru June 30, 2018.

ACCOUNT	AMOUNT
RECORDINGS	$4,020.00
OUTSTANDING RCD	$0.00
OVERPYMT KEPT	$2.00
OVERPYMT VOUCHER	$0.00
AB 6 NOD FORECLOSURE MEDIATION FUND	$90.00
AB 6 NOD BUDGET SHORTFALL	$150.00
AB 259 NOD INDIGENT	$10.00
REAL PROPERTY TRANSFER TAX (General)	$1,538.90
REAL PROPERTY TRANSFER TAX (State .10)	$279.80
REAL PROPERTY TRANSFER TAX (State 1.30)	$3,637.40
COPY WORK	$881.25
SB 14 DOMESTIC VIOLENCE FUND	$10.00
TECHNOLOGY FEE	$960.00
FUND TO ASSIST (Previous Foster Care)	$192.00
LEGAL SERVICES FOR INDIGENT	$576.00
COMPENSATION OF INVESTIGATORS APPOINTED BY DISTRICT COURT	$192.00
DEPARTMENT OF MINERALS (State)	$5,080.00
MAPS	$1,545.00
TOTAL AMOUNT REMITTED TO TREASURER:	**$19,164.35**

Lesley L. Bunch
Lander County Recorder

REPORTING MONTH OF June 2018 FUND #300--TECHNOLOGY FEES

RECORDER

BEGINNING BALANCE June 2018	$54,169.69
REVENUE	$1,025.00
Expenditures	(4,511.60)
Adjustment	
ENDING BALANCE June 2018	$50,683.09

ASSESSOR

BEGINNING BALANCE June 2018	$3,085,410.76
REVENUE	1,675.56
EXPENDITURES	(10,874.50)
Adj Btwn Fnds	-
Interest 2017 Adjustment	
ENDING BALANCE-June 2018	$3,076,211.82

CLERK

BEGINNING BALANCE June 2018	$28.15
REVENUE	$0.00
EXPENDITURES	$0.00
Interest 2017 Adjustment	$0.00
ENDING BALANCE June 2018	$28.15

TOTALS

June 2018 Beginning Balance		**$3,163,581.18**
Recorder		**(3,486.60)**
Assessor		**(9,198.94)**
CLERK		
June 2018 Ending Balance		**$3,150,895.64**

Rebecca Murphy
Lander County Treasurer/Gene Etcheverry

Yearly Recap July 2017 Thru June 30, 2018

Beginning Bal July 2017	2,414,584.78
Revenue	1,534,047.46
Expenditures	(678,458.90)
Interest	22,106.71
Adj	**(141,384.41)**
Ending Balance June 30, 2018	**3,150,895.64**

RECEIVED
JUL 17 2018
LANDER COUNTY CLERK

STATEMENT OF BUDGETED REVENUES & EXPENDITURES COMPARED TO ACTUAL

300 TECHNOLOGY FEES
PERIOD ENDING 6/30/18

	FINAL AMENDED BUDGET	******** ACTUAL ******** CURRENT PERIOD	YEAR TO DATE	OVER - UNDER BUDGET	%
REVENUES					
31010 REAL PROPERTY TAXES-	.00	.00	.00	.00	0
32221 RECORDER TECH FEES	8,500.00	1,025.00	26,157.00	17,657.00-	307
32223 ASSESSOR TECH FEES	300,000.00	1,675.56	1,090,810.34	790,810.34-	363
32224 DIST COURT TECH FEES	.00	.00	.00	.00	0
38007 INTEREST-RECORDER	21.00	.00	.00	21.00	0
38009 INTEREST-ASSESSOR	2,125.00	.00	.00	2,125.00	0
38013 INTEREST-DIST. COURT	.00	.00	.00	.00	0
38046 ASSESR TECH NET PRO	.00	.00	.00	.00	0
38080 MISCELLANEOUS REVENU	.00	.00	.00	.00	0
38122 GRANT-OTS CRASH	.00	.00	.00	.00	0
39009 TRANS IN FMV	.00	.00	.00	.00	0
TOTAL REVENUES	310,646.00	2,700.56	1,116,967.34	806,321.34	359
EXPENDITURES					
59045 TRANS OF REVENUES	.00	.00	.00	.00	0
TOTAL	.00	.00	.00	.00	0
067 RECORDER					
53920 SERVICE AND SUPPLIES	17,500.00	5,194.45	11,236.97	6,263.03	64
53991 MINOR EQUIP/FURNITUR	5,000.00	.00	4,016.47	983.53	80
59015 TRANS OUT INTEREST	.00	.00	.00	.00	0
59950 MISCELLANEOUS	2,500.00	.00	86.99	2,413.01	3
TOTAL RECORDER	25,000.00	5,194.45	15,340.43	9,659.57	61
068 ASSESSOR					
53920 SERVICE AND SUPPLIES	550,000.00	12,147.91	103,559.82	446,440.18	18
53991 MINOR EQUIP/FURNITUR	315,000.00	6,107.00	58,966.00	256,034.00	18
54010 NEW FIXED ASSETS	725,000.00	.00	25,294.00	699,706.00	3
54095	.00	.00	.00	.00	0
59045 TRANS OF REVENUES	45,000.00	.00	45,000.00	.00	100
59405	.00	.00	.00	.00	0
TOTAL ASSESSOR	1,635,000.00	18,254.91	232,819.82	1,402,180.18	14
069 DISTRICT COURT					
53920 SERVICE AND SUPPLIES	.00	.00	.00	.00	0
53991 MINOR EQUIP/FURNITUR	.00	.00	.00	.00	0
TOTAL DISTRICT COURT	.00	.00	.00	.00	0
TOTAL EXPENDITURES	1,660,000.00	23,449.36	248,160.25	1,411,839.75	14
NET REV & EXPENDITURE	1,349,354.00-	20,748.80-	868,807.09	2,218,161.09-	64-

Rcpt No.	Receipt Description	Act TP	Date	Debit Amount	Credit Amount	Balance	PDA No.	
ACCOUNT-300	TECHNOLOGY FEES	TYPE- FUND						
					Beginning Balance	3,163,581.18		
58674	WEEK ENDING 05-31-18	300 CR	06/01/18		65.00	3,163,646.18	300-000-32221-000	RECORDER
58719	WEEK ENDING 06-08-18	300 CR	06/11/18		620.00	3,164,266.18	300-000-32221-000	RECORDER
6098	SPEC EXPND 06-08-18	300 DS	06/15/18	93.85		3,164,172.33	300-000-00000-000	
6148	COMM BILLS 06-14-18	300 DS	06/15/18	9,185.25		3,154,987.08	300-000-00000-000	
58745	WEEK ENDING 06-15-16	300 CR	06/18/18		105.00	3,155,092.08	300-000-32221-000	RECORDER
58793	WEEK ENDING 06-25-18	300 CR	06/26/18		155.00	3,155,247.08	300-000-32221-000	RECORDER
6288	COMM BILLS 06-28-18	300 DS	06/29/18	6,107.00		3,149,140.08	300-000-00000-000	
58821	2017-18 NET PROCEEDS	300 CR	06/29/18		1,650.25	3,150,790.33	300-000-32223-000	ASSESSOR
58825	2016-17 REAL PROP	300 CR	06/29/18		3.56	3,150,793.89	300-000-32223-000	ASSESSOR
58826	2017-18 REAL PROP	300 CR	06/29/18		12.15	3,150,806.04	300-000-32223-000	ASSESSOR
58827	2016-17 PERS PROP	300 CR	06/29/18		3.79	3,150,809.83	300-000-32223-000	ASSESSOR
58828	2017-18 PERS PROP	300 CR	06/29/18		5.81	3,150,815.64	300-000-32223-000	ASSESSOR
58831	WEEK ENDING 06-30-18	300 CR	06/29/18		80.00	3,150,895.64	300-000-32221-000	RECORDER
				15,386.10	2,700.56			
ACCOUNT-300	TECHNOLOGY FEES				ENDING BALANCE	3,150,895.64		

BRIAN SANDOVAL
Governor

STATE OF NEVADA

ANGELA DYKEMA
Director

755 North Roop Street, Suite 202
Carson City, NV 89701
Office: (775) 687-1850
Fax: (775) 687-1869

GOVERNOR'S OFFICE OF ENERGY

July 10, 2018

Ormat Technologies
ATTN: Stephanie Osborne
6225 Neil Road
Reno, NV 89511-1136

Re: AFN 14-0312G, McGinness Hills Phase II
Annual Compliance Report 2018

Dear Ms. Osborne,

Pursuant to regulation NAC 701A.620, we acknowledge receipt of your Annual Compliance Report for the above referenced project. Your compliance report has been reviewed and you are found to be in compliance with the terms of the Abatement Agreement.

This written notification will be forwarded to the Nevada Department of Taxation, County Assessor and Treasurer, and Board of County Commissioners.

Please remember that if your project experiences a significant change in scope, (as defined in NAC 701A.545), you will need to provide notice to the Governor's Office of Energy.

Should you have any questions, please contact Laura Wickham at (775) 687-1850 x 7308 or by email at lwickham@energy.nv.gov.

Sincerely,

Angie Dykema
Director

CC: Jeffrey Mitchell, Nevada Department of Taxation
Lander County Assessor
Lander County Treasurer
Lander County Board of Commissioners

BRIAN SANDOVAL
Governor

STATE OF NEVADA

ANGELA DYKEMA
Director

755 North Roop Street, Suite 202
Carson City, NV 89701
Office: (775) 687-1850
Fax: (775) 687-1869

GOVERNOR'S OFFICE OF ENERGY

ANNUAL COMPLIANCE REPORT
SUMMARY
FOR RENEWABLE ENERGY TAX ABATEMENT PARTICIPANTS

Project Name: Ormat McGinness Hills Phase II
AFN: 14-0312G

Project Description: An operational 48 MW nameplate geothermal power plant located in Lander County.

Abatement Effective Date: June 2, 2014

Summary of Compliance Information			
Average Wage to Operational Employees	$42.75	**Required Wage per Statute**	$22.40
Current Business License	YES		

Notice of Proposed Action

By the

State of Nevada

The Administrator of the Division of Environmental Protection (the Division) gives notice that an application for a new Water Pollution Control Permit for the Fire Creek Surface Discharge Project, a dewatering management facility, has been properly filed with the Division of Environmental Protection in Carson City. The Applicant for Water Pollution Control Permit NEV2018104 (Permit) is:

Klondex Gold & Silver Mining Company
6110 Plumas Street, Suite A
Reno, NV 89519

The facility is located on public and private land in Lander County, within Section 23, T30N, R47E, MDB&M, approximately 18 miles southeast of the town of Battle Mountain.

The Project consists of a discharge to the surface from the dewatering of a mine, pursuant to Nevada Administrative Code (NAC) 445A.232.1 and NAC 445A.232.8.

The Administrator is constrained to either issue the Permit or to deny the application. The Administrator has made the tentative decision to issue the new Permit.

Persons wishing to comment upon the proposed Permit, to recommend terms and conditions for consideration of incorporation into the Permit, or who request a public hearing pursuant to NAC 445A.238, must submit their written comments, objections, or requests by hand delivery or US Postal Service, or by facsimile or e-mail transmittal, no later than 5:00 PM on the 30th day following the date of publication of this notice (submittal end date 3 August 2018) to:

Division of Environmental Protection
Bureau of Mining Regulation and Reclamation
901 South Stewart Street, Suite 4001
Carson City, NV 89701-5249

All comments, objections, or requests received during the public notice period will be considered in the final determination regarding the Permit. If the Division determines written comments or requests indicate a significant degree of public interest in this matter, the Administrator shall schedule a public hearing in accordance with the requirements of NAC 445A.405.

The draft Permit and all application documents are on file at the Division and are available for public inspection and copying pursuant to Nevada Revised Statute 445A.665. For more information, contact Michelle Griffin at (775) 687-9405 or visit the Division public notice website at https://ndep.nv.gov/posts/category/land.

STATE OF NEVADA

Department of Conservation and Natural Resources
Division of Environmental Protection
Bureau of Mining Regulation and Reclamation

Discharge Permit

Permittee: **Klondex Gold & Silver Mining Company**
Fire Creek Surface Discharge Project
6110 Plumas Street, Suite A
Reno, NV 89519

Permit Number: **NEV2018104**
Review Type/Year/Revision: **New Permit 2018, Revision 00**

Pursuant to Nevada Revised Statutes (NRS) 445A.300 through 445A.730, inclusive, and regulations promulgated thereunder by the State Environmental Commission and implemented by the Division of Environmental Protection (the Division), this Permit authorizes the Permittee to discharge treated mine dewatering water at the **Fire Creek Surface Discharge Project**, in accordance with the limitations, requirements, and other conditions set forth in this Permit. The Permittee is authorized to discharge up to **1,200,000 gallons per day** (gpd) from the treatment plant to the land surface in the unnamed tributary of Fire Creek.

The Project and outfall is located in Lander County, within Section 23, Township 30 North, Range 47 East, Mount Diablo Baseline and Meridian, approximately 18 miles southeast of the town of Battle Mountain, Nevada.

The Permittee must comply with all terms and conditions of this Permit and all applicable statutes and regulations. This Permit does not authorize discharge to waters of the U.S.

This Permit is based on the assumption that the information submitted in the application of 5 March 2018, as modified by subsequent approved amendments, is accurate and that the Project has been constructed and is being operated as specified in the application. The Permittee must inform the Division of any deviation from, or changes in, the information in the application that may affect the ability of the Permittee to comply with applicable regulations or Permit conditions.

This Permit is effective as of **Day August 2018**, and shall remain in effect until **Day August 2023**, unless modified, suspended, or revoked.

Signed this _____ day of **August 2018**.

_____
Joseph Sawyer, P.E.
Chief, Bureau of Mining Regulation and Reclamation

I. Specific Project Conditions and Limitations

A. In accordance with operating plans and Project design plans reviewed and approved by the Division the Permittee shall:

1. Construct, operate, and close the Project in accordance with those plans;

2. Except for the discharge authorized by this Permit, and any other approved uses, contain within the fluid management system all dewatering water and all meteoric waters that enter the system as a result of the 25-year, 24-hour storm event; and

3. Not release or discharge any contaminants from the fluid management system that would result in degradation of waters of the State.

B. Schedule of Compliance: None Required.

C. The fluid management system covered by this Permit consists of the following components:

1. All components used to collect, convey, manage, and control the discharge water, including but not limited to, pumps, pipes, valves, vents, flow meters, fittings, tanks, drains, basins, sumps, ditches, berms, culverts, drill rigs, mobile equipment, run-off/run-on structures, and devices for controlling erosion or sedimentation.

D. Monitoring Requirements:

Identification	**Parameter**	**Frequency**
1. Discharge Flow Distance Discharge at the Diffuser	Endpoint location[2][3] and photograph[4], flow path distance from discharge point to endpoint (feet)[6]	Weekly[5]
2. Discharge to Surface Water Non-Contact Water (5340) Diffuser;	Date, volume discharged (gal)[6], discharge duration (hours)[6];	Daily;
Non-Contact Water (5340) Diffuser;	Profile I[1];	Monthly;
Fire Creek Upgradient of the Diffuser Fire Creek Downgradient of the confluence;	Flow (gpm);	Monthly, when flowing;

Identification	Parameter	Frequency
Storm Event Monitoring on Date of Discharge to Fire Creek	Storm duration (hours), precipitation (inches)(6)	Per storm event(6)

The Permittee may request a reduction of the monitoring frequency after four quarters of complete monitoring based on justification other than cost. Such reductions may require submittal of a new Permit application and public notice.

Abbreviations:

ID = identification number or name; gal = gallons; gpm = gallons per minute; gpd = gallons per day; $CaCO_3$ = calcium carbonate; N = nitrogen; P = phosphorus; SU = standard units; mg/L = milligrams per liter; PCS = Petroleum-Contaminated Soil; °C = degrees Celsius; GPS = global positioning satellite; pH =

Footnotes:

(1) Profile I:

Alkalinity (as $CaCO_3$)	Cadmium	Magnesium	Silver
Bicarbonate	Calcium	Manganese	Sodium
Total	Chloride	Mercury	Sulfate
Aluminum	Chromium	Nitrate + Nitrite (as N)	Thallium
Antimony	Copper	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Fluoride	pH (± 0.1 SU) (7)	Zinc
Barium	Iron	Potassium	-
Beryllium	Lead	Selenium	-

(2) Use GPS, or equivalent method, to determine locations in Universal Transverse Mercator coordinates (in meters, NAD 83 datum), and provide a map showing all locations monitored per Part II.B.1.

(3) As used herein, the discharge endpoint is the furthest downgradient point reached by a surface discharge.

(4) For each surface discharge, take a photograph looking downgradient showing the discharge endpoint(2) and visual evidence that the discharge flowed to that point but not any further.

(5) Monitor the endpoint(2) location of each surface discharge weekly, but in the monitoring report required in Part II.B.1., include only the furthest downgradient location and photograph(3), and the maximum flow distance, reached during the quarter.

(6) As used herein, the discharge inflow point is the point where water discharged from a particular outfall comingles with a surface water body or enters an otherwise dry stream channel, whichever occurs first. Provide the type of receiving body (e.g., creek, river, wetland, pond, lake, reservoir, dry channel, etc.), receiving body name, if it has one, and inflow point location[(2)]. Estimate the total volume of discharge water that flows into the receiving body and the duration of the discharge to the receiving body. Specify whether or not the discharge to surface water or stream channel occurred during a storm event, and if so, report the storm duration and total amount of precipitation. If there is no discharge to a surface water or stream channel, there is no inflow point monitoring requirement.

(7) All sample analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as $CaCO_3$ equivalent).

E. Quarterly and annual monitoring reports and release reporting shall be in accordance with Part II.B.

F. All sampling and analytical accuracy shall be in accordance with Part II.E.

G. Permit Limitations

1. Failure to meet a Schedule of Compliance date or requirement.
2. The maximum instantaneous surface discharge flow rate from an individual outfall is 800 gpm. The maximum total Project daily surface discharge flow rate for all outfalls combined is 1,200,000 gpd.
3. There shall be no discharge except from the outfalls identified in Part I.C., or from other outfalls in the Project area that comply with all Permit requirements and are identified in quarterly monitoring reports.
4. There shall be no discharge to surface water or a stream channel that exceeds an applicable water quality standard at Nevada Administrative Code (NAC) 445A.121, 445A.1236, or 445A.1442. There shall be no discharge that infiltrates beneath the land surface and exceeds both a drinking water standard and the natural background groundwater concentration for the same parameter, unless the Division has approved a demonstration that the discharge does not have the potential to degrade groundwater.
5. All analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as $CaCO_3$ equivalent).
6. The Permittee shall obtain and maintain current jurisdictional determinations from the U.S. Army Corps of Engineers for all receiving surface water bodies and stream channels that may be affected by the authorized discharge.
7. No chemicals shall be added to the discharge water, except as approved by the Division prior to use. A proposal to add a chemical to an approved discharge may require submittal of a new permit application and fee. The application must specify the type of chemical, the proposed dosage rate, and include a safety data sheet (SDS) with aquatic life toxicity information and any other supporting

documentation which demonstrates that the proposed chemical will not create any adverse environmental effects.

8. There shall be no objectionable odors from the discharge area.
9. There shall be no discharge of floating or suspended solids, or visible foam, in other than trace amounts. Drilling mud and other visible residue shall not be left in a stream channel where it may be carried into waters of the State during a flow event. Other discharged contaminants shall not be left in a stream channel if it would create the potential for exceedance of a water quality standard.
10. Best management practices (BMPs) shall be employed for energy dissipation and for management of water flow and water quality, at the outfall. Additional BMPs shall be installed in the discharge flow path, as warranted, to minimize erosion and sedimentation.
11. In accordance with Part I.M., the following BMPs shall be employed during dust suppression activities: only clarified water shall be used, no runoff shall be created, and dust suppression activities shall be suspended when the ground surface is saturated or frozen.

Exceedances of these limitations may be Permit violations and shall be reported as specified in Part II.B.4.

H. The Project shall maintain an automated or manual calibrated rain gauge, which shall be monitored at least daily to record precipitation (inches of water). A written and/or electronic record of all daily accumulations of precipitation shall be maintained on site. Depending on site topography and size, multiple meteorological stations may be required.

I. The Permittee shall inspect all control devices, systems, and facilities weekly, and also during, when possible, and after major storm events. These inspections are performed to detect evidence of:

1. Deterioration, malfunction, or improper operation of control or monitoring systems;
2. Sudden changes in the data from any monitoring device (if applicable);
3. The presence of liquids in leak detection systems (if applicable);
4. Unauthorized discharges; and
5. Severe erosion or other signs of deterioration in sumps, dikes, diversions, closure covers, or other fluid management components.

J. Prior to permanently ceasing a permitted discharge, or prior to initiating permanent closure activities at the Project, or at any component within the Project, the Permittee must have an approved final plan for permanent closure, which shall include, but may not be limited to, plans to stabilize, as defined at NAC 445A.379, all applicable components of the fluid management system and applicable lands disturbed by the Project.

K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting July 1 after the effective date of this Permit and every year thereafter until the Permit is terminated or the Project has received final closure certification from the Division.

L. The Permittee shall not dispose of or treat Petroleum-Contaminated Soil (PCS) on the Project site without first obtaining from the Division approval of a PCS Management Plan.

M. When performing dust suppression activities, the Permittee shall use BMPs and appropriate selection of water source and additives to prevent degradation of waters of the State. If a dust suppressant exceeds a water quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall demonstrate no potential to degrade waters of the State.

N. Continuing Investigations: None Required

II. General Project Conditions and Limitations

A. General Requirements

1. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the Permit upon commencement of each relevant activity. The Administrator may, upon the request of the Permittee and after public notice (if required), revise or modify a Schedule of Compliance in an issued Permit if he determines good and valid cause (such as an act of God, a labor strike, materials shortage, or other event over which Permittee has little or no control) exists for such revision.

2. The Permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, and systems installed or used by the Permittee to achieve compliance with the terms and conditions of this Permit.

3. Whenever the Permittee becomes aware that he failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Administrator, the Permittee shall promptly submit such facts or correct information. Any inaccuracies found in this information may be grounds for revocation or modification of this Permit and appropriate enforcement action.

B. Reporting Requirements

1. The Permittee shall submit quarterly reports, in both hard copy and a Division-approved electronic format, which are due to the Division on or before the 28th day of the month following the quarter and must contain the following:

a. Analytical results of discharges to surface water or stream channel identified in Part I.D.2., reported on a form similar to NDEP Form 0190 that

has been modified to include the parameters specified in Part I.D. Footnote (1);

b. Photographs identified in Part I.D.1., labeled with the date;

c. A location map showing outfalls, discharge endpoints, and surface water inflow points, as identified in Parts I.D.1. and I.D.2.;

d. Outfall flow monitoring, total Project flow monitoring, flow distance, and all other non-analytical monitoring results identified in Parts I.D.1. and I.D.2., reported in tabular format, as appropriate;

e. A notice of new discharges in accordance with NAC 445A.258 for any outfalls not identified in Part I.C. or in previous quarterly reports, and

f. A record of releases, and the remedial actions taken, on NDEP Form 0490 or equivalent.

Facilities which have not initiated permitted activities must submit a quarterly report identifying the status of the Project. Subsequent to any noncompliance or any Project expansion which may lead to an increased discharge rate or frequency, the Division may require an accelerated monitoring frequency. If the Permittee monitors any parameter at a location designated herein more frequently than required by this Permit, using methods that comply with the requirements in Part II.E., the results of such monitoring shall be included in the quarterly monitoring report.

2. The Permittee shall submit an annual report, in both hard copy and a Division-approved electronic format, by February 28th of each year, for the preceding calendar year, which contains the following:

   a. A synopsis of releases on NDEP Form 0390 or equivalent;

   b. A brief summary of site operations, including construction and expansion activities, and major problems with the fluid management system;

   c. A table of total monthly precipitation amounts recorded in accordance with Part I.H, reported for either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter;

   d. An updated version of the Project monitoring and sampling procedures and protocols;

   e. A graph of total Project daily surface discharge flows versus time. The graph shall display either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter; and

   f. Maps showing pH values, and antimony, arsenic, chloride, manganese, selenium, sulfate, and total dissolved solids (TDS) concentrations (as applicable at all fluid sampling points). These maps shall display either a five-year history previous to the date of submittal or the history since initial

Permit issuance, whichever is shorter, with the data from the last year highlighted. Display only one parameter per map. Additional parameters may be required by the Division if deemed necessary.

3. Release Reporting Requirements: The following applies to facilities with an approved Emergency Response Plan. If a site does not have an approved Emergency Response Plan, then all releases must be reported as per NAC 445A.347 or NAC 445A.3473, as appropriate. Discharges are not releases unless they violate applicable regulations or Permit requirements.

   a. A release of any quantity of hazardous substance, as defined at NAC 445A.3454, to surface water, or that threatens a vulnerable resource, as defined at NAC 445A.3459, must be reported to the Division as soon as practicable after knowledge of the release, and after the Permittee notifies any emergency response agencies, if required, and initiates any action required to prevent or abate any imminent danger to the environment or the health or safety of persons. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b.

   b. A release of a hazardous substance in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 Code of Federal Regulations (CFR) Part 302 must be reported as required by NAC 445A.3473 and Part II.B.3.a.

   c. A release of a non-petroleum hazardous substance not subject to Parts II.B.3.a. or II.B.3.b., released to soil or other surfaces of land, and the total quantity is equal to or exceeds 500 gallons or 4,000 pounds, or that is discovered in or on groundwater in any quantity, shall be reported to the Division no later than 5:00 P.M. of the first working day after knowledge of the release. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b. Smaller releases, with total quantity greater than 25 gallons or 200 pounds and less than 500 gallons or 4,000 pounds, released to soil or other surfaces of land, or discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

   d. Petroleum Products and Coolants: If a release is subject to Parts II.B.3.a. or II.B.3.b., report as specified in Part II.B.3.a. Otherwise, if a release of any quantity is discovered on or in groundwater, or if the total quantity is equal to or greater than 100 gallons released to soil or other surfaces of land, report as specified in Part II.B.3.c. Smaller releases, with total quantity greater than 25 gallons but less than 100 gallons, released to soil or other surfaces of land, or if discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

4. The Permittee shall report to the Administrator any noncompliance with the Permit.

   a. Each such event shall be reported orally by telephone to (775) 687-9400, not later than 5:00 P.M. of the next regular work day from the time the Permittee has knowledge of the circumstances. This report shall include the following:

      i. Name, address, and telephone number of the owner or operator;

      ii. Name, address, and telephone number of the Project;

      iii. Date, time, and type of incident, condition, or circumstance;

      iv. If reportable hazardous substances were released, identify material and report total gallons and quantity of contaminant;

      v. Human and animal mortality or injury;

      vi. An assessment of actual or potential hazard to human health and the environment outside the Project; and

      vii. If applicable, the estimated quantity of material that will be disposed and the disposal location.

   b. A written summary shall be provided within 10 days of the time the Permittee makes the oral report. The written summary shall contain:

      i. A description of the incident and its cause;

      ii. The periods of the incident (including exact dates and times);

      iii. If reportable hazardous substances were released, the steps taken and planned to complete, as soon as reasonably practicable, an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269;

      iv. Whether the cause and its consequences have been corrected, and if not, the anticipated time each is expected to continue; and

      v. The steps taken or planned to reduce, eliminate, and prevent recurrence of the event.

   c. The Permittee shall take all available and reasonable actions, including more frequent and enhanced monitoring to:

      i. Determine the effect and extent of each incident;

      ii. Minimize any potential impact to the waters of the State arising from each incident;

      iii. Minimize the effect of each incident upon domestic animals and all wildlife; and

      iv. Minimize the endangerment of the public health and safety which arises from each incident.

d. If required by the Division, the Permittee shall submit, as soon as reasonably practicable, a final written report summarizing any related actions, assessments, or evaluations not included in the report required in Part II.B.4.b., and including any other information necessary to determine and minimize the potential for degradation of waters of the State and the impact to human health and the environment. Submittal of the final report does not relieve the Permittee from any additional actions, assessments, or evaluations that may be required by the Division.

C. Administrative Requirements

1. A valid Permit must be maintained until permanent closure is complete. Therefore, unless permanent closure has been completed and termination of the Permit has been approved in writing by the Division, the Permittee shall apply for Permit renewal not later than 180 days before the Permit expires, pursuant to NAC 445A.241.

2. The Permittee shall submit current Permit contact information described in paragraphs (a) through (c) of subsection 2 of NAC 445A.394 within thirty (30) days after any change in previously submitted information. The same information shall be submitted in the same timeframe with any application for a Permit transfer, in addition to the information required at NAC 445A.263, subsection 4(e). An application for a new Permit, Permit renewal, or a Permit modification that requires public notice shall include current Permit contact information described in paragraphs (a) through (d) of subsection 2 of NAC 445A.394.

3. All reports and other information requested by the Administrator shall be signed and certified as required by NAC 445A.231.

4. All reports required by this Permit, including, but not limited to, monitoring reports, corrective action reports, and as-built reports, as applicable, and all Permit applications for Permit modifications and renewals, shall be submitted in both hard copy and a Division-approved electronic format.

5. When ordered consistent with Nevada Statutes, the Permittee shall furnish any relevant information in order to determine whether cause exists for modifying, suspending, or revoking this Permit, or to determine compliance with this Permit.

6. The Permittee shall maintain a copy of, and all modifications to, the current Permit at the permitted facilities at all times.

7. The Permittee is required to retain during Project operation, and for a minimum of 3 years thereafter, all records of monitoring activities and analytical results, including all original strip chart or data logger recordings for continuous monitoring instrumentation, and all calibration and maintenance records. This period of retention must be extended during the course of any unresolved litigation.

8. The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not thereby be affected.

9. The Permittee is authorized to manage fluids and solid wastes in accordance with the conditions of this Permit. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Water Pollution Control Statutes for releases or discharges from facilities or units not regulated by this Permit. NRS 445A.675 provides that any person who violates a Permit condition is subject to administrative or judicial action provided in NRS 445A.690 through 445A.705.

D. Division Authority

The Permittee shall allow authorized representatives of the Division, at reasonable times, and upon the presentation of credentials to:

1. Enter the premises of the Permittee where a regulated activity is conducted or where records are kept per the conditions of this Permit;

2. Have access to and copy any record that must be kept per the conditions of this Permit;

3. Inspect and photograph any components, equipment (including monitoring and control equipment), practices, or operations regulated by this Permit; and

4. Sample or monitor for any substance or parameter at any location for the purposes of assuring Permit and regulatory compliance.

E. Sampling and Analysis Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. For each measurement or sample taken pursuant to the conditions of this Permit, the Permittee shall record the following information:

   a. The exact place, date, and time of the inspection, observation, measurement, or sampling; and

   b. The person(s) who inspected, observed, measured, or sampled.

3. Samples must be taken, preserved, and labeled according to Division approved methods.

4. Standard environmental monitoring chain of custody procedures must be followed.

5. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must

identify in all required reports the certified and approved laboratories used to perform the analyses, laboratory reference numbers, and sample dates, and for the electronic version of each report only, include all associated laboratory analytical reports, including test results, test methods, chain-of-custody forms, and quality assurance/quality control documentation.

6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and be reliable to at least two significant digits. The analytical methods used must have a practical quantitation limit (PQL) equal to or less than one-half the reference value or water quality standard for Profile I. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples for Profile I parameters shall be filtered and analyzed for the dissolved fraction, unless otherwise required by the Division. Unless otherwise approved by the Division, analytical results that are less than the PQL shall be reported quantitatively by listing the PQL value preceded by the "<" symbol.

F. Permit Modification Requirements

1. In accordance with NAC 445A.258, 445A.261, and 445A.263, any planned Project expansion, production increase, or modification that would result in a new or increased discharge, must be reported to the Division by submittal of an application for a new Permit. A change that is in conformance with the existing Permit, or that qualifies as a minor modification pursuant to NAC 445A.263, subsection 4, must be reported to the Division by submittal of a written notice of the changes. An application for a new Permit must comply with NAC 445A.228 through 445A.263, as applicable. The expansion, production increase, or modification shall not commence, nor shall a change to the Permit be effective, until a new Permit or written Division approval is obtained.

2. Prior to the commencement of discharge at any location within the State outside of the Project area which is owned or operated by the Permittee but not identified and characterized in a previously submitted Permit application, the Permittee shall submit to the Division an application for a new Permit which identifies the locations of the proposed outfalls, and characterizes the potential for the discharge to release pollutants and degrade waters of the State. The discharge shall not commence until the new Permit is issued and effective.

3. The Permittee shall notify the Division in writing at least five days before commencing the discharge authorized by this Permit of the intent to begin active operation of the Project.

4. The Permittee must obtain a written determination from the Administrator of any planned modification of the Project as to whether it is considered a minor modification of the Permit or a change that requires a new Permit.

5. If a toxic effluent standard or prohibition is established under NAC 445A for a toxic pollutant that is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this Permit, this

Permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

Prepared by: Michelle Griffin
Date: 22 June 2018

Revision 00: New Permit

FACT SHEET

(Pursuant to Nevada Administrative Code (NAC) 445A.236)

Permittee Name: **Klondex Gold & Silver Mining Company**

Project Name: **Fire Creek Surface Discharge Project**

Permit Number: **NEV2018104**

Review Type/Year/Revision: **New Permit 2018, Fact Sheet Revision 00**

A. Location of Discharge

Location: The Fire Creek Surface Discharge Project authorizes the discharge of treated and untreated mine dewatering water into a channel adjacent to Fire Creek, deemed non-jurisdictional by the Army Corps of Engineers in 2018. The discharge point is located in Section 23, Township 30 North, Range 47 East, Mount Diablo Baseline & Meridian (MDB&M).

General Description: The Project consists of a tie-in to an existing pipe which discharges to the rapid infiltration basins (RIBs). The water treatment system is permitted and monitored under the Fire Creek Project Water Pollution Control Permit (WPCP) NEV2007104.

B. Description of Discharge

General: The Permittee operates an underground mining facility, located approximately 18 miles southeast of the town of Battle Mountain.

The Permittee will discharge treated water generated from the dewatering of the underground mine at the Project. Water generated from the existing water treatment plant at the Fire Creek Mine is conveyed through an 8-inch diameter high-density polyethylene (HDPE) pipeline over a distance of approximately 1.75 miles for discharge into the rapid infiltration basins (RIBs). A 24-inch, 500-foot long HDPE pipeline ties in to this existing pipeline approximately 0.75 miles prior to the discharge location for the RIBs, for discharge into a channel adjacent to Fire Creek.

The treatment plant effluent is of good quality and meets the Surface Water Profile reference values. The discharge pipeline is equipped with a totalizer flow meter. The actual discharge volume and rate shall not exceed the permitted limit of 1,200,000 gallons per day.

A pipeline conveying non-contact water which meets Profile I reference values is tied-in to the treatment plant effluent pipeline for discharge at the diffuser.

C. Proposed Determination

The Division has made the tentative determination to issue the new Permit.

D. Receiving Water Characteristics

Background water quality of Fire Creek has been monitored through the Fire Creek Project WPCP NEV2007104. Water quality is of good quality and meets all Surface Water Profile reference values.

One source of the discharge is treated water from the dewatering of the underground workings. The influent to the treatment plant typically exceeds the Profile I reference values for antimony, arsenic, chloride, manganese, selenium, sulfate, and total dissolved solids, but meets all standards at the diffuser. The surface discharge pipe is tied into the pipe which discharges to the infiltration basins.

Another source of the discharge is water encountered in the underground workings at approximately 5,340 feet above mean sea level (amsl). Water from the 5,340 foot amsl level is held in an underground tank, as needed, and piped to the surface through a single wall 4-inch HDPE SDR11 pipe. This pipe ties in to the existing 8-inch HDPE permeate pipeline from the water treatment plant which is routed to the surface discharge diffuser. The tie in is isolated by check valve. Water quality at the 5,340 foot amsl level meets all Profile I reference values.

E. Proposed Effluent Limitations, Schedule of Compliance, Monitoring, Special Conditions

See Section I of the Permit.

F. Rationale for Permit Requirements

The facility must not discharge a pollutant that would result in the degradation of existing or potential underground sources of drinking water, or that would cause an exceedance of an applicable surface water quality standard or regulation.

The primary methods for ensuring compliance will be required routine monitoring and reporting, augmented by Division site inspections. Specific monitoring requirements can be found in the Permit.

G. Procedures for Public Comment

The Notice of the Division's intent to issue a Permit authorizing the discharge, subject to the conditions within the Permit, is being sent to the **Battle Mountain Bugle** for publication. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date of public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. The public hearing must be conducted in accordance with Nevada Revised Statutes (NRS) Chapter 233B, unless waived by the applicant.

H. Federal Migratory Bird Treaty Act

Under the Federal Migratory Bird Treaty Act, 16 U.S. Code 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 Code of Federal Regulations 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service (the Service) is authorized to enforce the prevention of migratory bird mortalities at ponds. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g., by covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by: Michelle Griffin
Date: 22 June 2018

Revision 00: New Permit.

NEVADA DIVISION OF
ENVIRONMENTAL
PROTECTION

STATE OF NEVADA
Department of Conservation & Natural Resources
Brian Sandoval, Governor
Bradley Crowell, Director
Greg Lovato, Administrator

6 July 2018

Amanda Steensen
Environmental Manager
Barrick Cortez Inc.
HC 66 BOX 1250
Crescent Valley, NV 89821

VIA EMAIL & CERTIFIED MAIL
Cert# 9171 9690 0935 0039 9465 43

RE: Notice of Decision and Issuance of Renewed Permit and Factsheet
Cortez Hills Project
Eureka and Lander Counties, Nevada
Nevada Water Pollution Control Permit NEV2007106

Dear Ms. Steensen:

The State of Nevada Division of Environmental Protection – Bureau of Mining Regulation and Reclamation (the Division) has completed its review process for the major modification and 2018 renewal for Water Pollution Control Permit (WPC) Permit NEV2007106 (Permit), Cortez Hills Project, and is hereby issuing the Notice of Decision and the revised Permit and Factsheet. The application was received 26 January 2018. The public comment period began on 23 May 2018 and ended on 22 June 2018. No comments were received.

Please review the attached Notice of Decision, WPC Permit Renewal 2018 Revision 00, and Factsheet Renewal 2018 Revision 00 with all personnel responsible for environmental compliance, and contact me immediately if any errors are detected. The revised Permit and Factsheet supersede all previous versions. The revised Permit becomes effective 21 July 2018, to allow the required 15 days for any appeals to the State Environmental Commission.

If you have any questions, please contact me at (775) 687-9413 or at nzittel@ndep.nv.gov.

Sincerely,

Natasha Zittel
Staff Engineer II/Permit Writer, Regulation Branch
NDEP Bureau of Mining Regulation & Reclamation

Enc: Notice of Decision,
WPCP, Renewal 2018, Revision 00,
Factsheet, Renewal 2018, Factsheet Revision 00

Ec: *Rob Kuczynski, Supervisor, Regulation Branch, NDEP-BMRR*
Christine Olson, Compliance Inspector, Regulation Branch, NDEP-BMRR
Todd Suessmith, Reclamation Branch, NDEP-BMRR
Lisa Kreskey, Closure Branch, NDEP-BMRR
Scott Distel, Battle Mountain Office, US BLM
Curtis Cadwell, General Manager, BCI
Mark Miller, Environmental and Safety Manager, BCI
Steve Schoen, Manager Permitting, BCI
Nick Atiemo, Nevada Process Permitting Manager, BCI
Trinity Stout, Environmental Engineer, BCI

NEVADA DIVISION OF
ENVIRONMENTAL
PROTECTION

STATE OF NEVADA
Department of Conservation & Natural Resources
Brian Sandoval, Governor
Bradley Crowell, Director
Greg Lovato, Administrator

6 July 2018

NOTICE OF DECISION

WATER POLLUTION CONTROL PERMIT NUMBER NEV2007106

Cortez Joint Venture dba Barrick Cortez Inc.
Cortez Hills Project

The Administrator of the Nevada Division of Environmental Protection (the Division) has decided to issue renewed Water Pollution Control Permit NEV2007106 to Cortez Joint Venture dba Barrick Cortez Inc. This Permit authorizes the construction, operation, and closure of approved mining facilities in Eureka and Lander Counties, Nevada. The Division has been provided with sufficient information, in accordance with Nevada Administrative Code (NAC) 445A.350 through 445A.447, to assure that the waters of the State will not be degraded by this operation, and that public safety and health will be protected.

The Permit will become effective 21 July 2018. The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to Nevada Revised Statute (NRS) 445A.605 and NAC 445A.407. All requests for appeals must be filed by 5:00 PM, 16 July 2018, on Form 3, with the State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249. For more information, contact Natasha Zittel at (775) 687-9413 or visit the Division website at https://ndep.nv.gov/posts/category/land.

No comments were received during the public comment period.

901 S. Stewart Street, Suite 4001 • Carson City, Nevada 89701 • p: 775.687.4670 • f: 775.687.5856 • ndep.nv.gov

STATE OF NEVADA

Department of Conservation and Natural Resources

Division of Environmental Protection

Bureau of Mining Regulation and Reclamation

Water Pollution Control Permit

Permittee: **Cortez Joint Venture dba Barrick Cortez Inc.**
Cortez Hills Project
HC66 Box 1250
Crescent Valley, Nevada 89821-1250

Permit Number: **NEV2007106**
Review Type/Year/Revision: **Renewal 2018, Revision 00**

Pursuant to Nevada Revised Statutes (NRS) 445A.300 through 445A.730, inclusive, and regulations promulgated thereunder by the State Environmental Commission and implemented by the Division of Environmental Protection (the Division), this Permit authorizes the Permittee to construct, operate, and close the **Cortez Hills Project**, in accordance with the limitations, requirements and other conditions set forth in this Permit. The Permittee is authorized to process up to **20,000,000 tons** of ore per year.

The facility is located in eastern Lander County and westernmost Eureka County, Nevada, within Sections 1, 2, 12, 13, and 24, Township 26 North, Range 47 East (T26N, R47E); Sections 5, 6, 7, 8, 17, 18, 19, and 20, T26N, R48E; Sections 12, 13, 14, 23, 24, 25, 26, 35, and 36, T27N, R47E; and Sections 18, 19, 30, 31, and 32, T27N, R48E, Mount Diablo Baseline and Meridian, approximately 37 miles southeast of the town of Battle Mountain, Nevada.

The Permittee must comply with all terms and conditions of this Permit and all applicable statutes and regulations.

This Permit is based on the assumption that the information submitted in the application of 30 July 2007, as modified by subsequent approved amendments, is accurate and that the facility has been constructed and is being operated as specified in the application. The Permittee must inform the Division of any deviation from or changes in the information in the application, which may affect the ability of the Permittee to comply with applicable regulations or Permit conditions.

This Permit is effective as of **21 July 2018**, and shall remain in effect until **20 July 2023**, unless modified, suspended, or revoked.

Signed this 2 day of **July 2018**.

Joseph Sawyer, P.E.
Chief, Bureau of Mining Regulation and Reclamation

I. Specific Facility Conditions and Limitations

A. In accordance with operating plans and facility design plans reviewed and approved by the Division the Permittee shall:

1. Construct, operate, and close the facility in accordance with those plans;
2. Contain within the fluid management system all process fluids including all meteoric waters which enter the system as a result of the 25-year, 24-hour storm event; and
3. Not release or discharge any process or non-process contaminants from the fluid management system.

B. Schedule of Compliance:

1. A minimum of 60 days prior to either the construction of the Tailings Impoundment 7 (TA-7) Stages 3 through 5, or the recommencement of operation of any associated historic Cortez Mine beneficiation process component that has been in temporary or permanent closure, the Permittee shall submit an updated engineering design for review and approval. Engineering review and Permit modification fees shall apply.
2. A minimum of 60 days prior to construction of the lined ore storage stockpiles, the Permittee shall submit the designs to the Division for review and approval. Engineering review and Permit modification fees shall apply.
3. A minimum of 60 days prior to construction of Phase IV of the Grass Valley Heap Leach Pad, the Permittee shall submit the designs to the Division for review and approval. Engineering review and Permit modifications fees shall apply.

The schedule of compliance items above are not considered completed until approved in writing by the Division.

C. The fluid management system covered by this Permit consists of the following process components:

1. Phases I, II, and III of the Grass Valley (Area 34) Heap Leach Facility including, but not limited to, the high-density polyethylene (HDPE) liner system, underdrain solution collection system, associated HDPE-lined channels and pipelines for solution collection and conveyance; the HDPE-lined Transfer Pipeline and By-Pass channels; the Pregnant Solution Sump; the double-lined HDPE Pregnant Sump Shelf; the double-lined HDPE Process Solution Pond; the double-lined HDPE Emergency/Storm Event Pond; the Grass Valley Carbon-in-Column Process Plant and associated secondary containment systems; and all other associated pipelines, pipeline containment systems, tanks, basins, sumps, pumps, valves, and other piping necessary for the conveyance and control of solution and to interconnect the components;

2. The Cortez Hills F-Canyon Underground Event Pipeline and all associated secondary containment, tanks, sumps, pumps, valves, and other pipelines;
3. The Cortez Hills F-Canyon Underground Water Handling System including, but not limited to, all associated secondary containment, pipelines, including the Contact Water Pipeline, tanks, basins, sumps, pumps, valves, piping, and ponds for the conveyance and control of fluids between and within components;
4. The single-lined HDPE (Cortez Mine) Tailings Impoundment 7 (TA-7) and associated underdrain solution collection system, double-lined HDPE Cortez Mine Underdrain Pond (UDP) and associated groundwater dewatering system, single-lined HDPE Cortez Mine Stormwater Pond (SWP) and associated groundwater dewatering system, Cortez Mine Thickener Overflow Pipeline, Cortez Mine HDPE-lined solution collection and conveyance channels, and associated sumps, pumps, tanks, and piping for the conveyance and control of fluids;
5. The double-lined HDPE (Cortez Mine) Water Storage Reservoir (WSR), leakage collection and recovery systems, and associated sumps, pumps, valves, and piping for the conveyance and control of fluids;
6. The Solid-Liquid Separation (SLS) Plant and all associated containment structures, vessels, tanks, filter systems, pumps, sumps, valves, piping, alarm systems, and material storage areas used for the treatment, conveyance, and control of Contact Water and solids;
7. The F-Canyon Ore Storage Pad comprised of the Upper and Lower Non-Segregated Ore Stockpile Pad and associated Geosynthetic Clay Layer (GCL), the HDPE-lined Segregated Ore Stockpile Pad, protective overliner layer, collection and conveyance corrugated polyethylene pipe (CPEP) and HDPE pipelines and secondary containment, Stormwater Collection Sump, Metals Removal Plant and radial stacker, and associated pipelines, sumps, berms and containment;
8. Range-Front Declines area Contact Water components, including, but not limited to, HDPE-lined Phase 2A, 2B, and 2C Ore Stockpile Pads, HDPE double-lined Event Pond, concrete Portal Underground Washbay, dual-walled Temporary Contact Water Tank, concrete Temporary Shotcrete Sump, buried dual-walled HDPE pipeline from Portal Underground Washbay to the existing Cross-Valley Contact Water Pipeline, and other interconnecting pipelines; and
9. All transfer pipelines, valves, and pumps used in the conveyance, control, or detection of fluids between components.

D. Monitoring Requirements:

Identification	**Parameter**	**Frequency**
1. Make-up Water Supply Well MMW-CH	Profile I[2]	Annually
2. Pond, Sump, Channel, and Tank Leak Detection Sumps [sump capacity] Grass Valley Pregnant Sump Shelf (GV-PS) [300 gal] Grass Valley Process Solution Pond (GV-PP) [1,900 gal] Grass Valley Emergency/Storm Event Pond (GV-SP) [1,800 gal] Grass Valley Phase III Solution Collection Channel (GV-PIIIC) [244 gal] Range-Front Declines Event Pond (RF-EP) [2,585 gal] Cortez Mine Water Storage Reservoir - North Cell (WSR-N) [7,836 gal] Cortez Mine Water Storage Reservoir - South Cell (WSR-S) [7,674 gal]	Average daily accumulation (gpd)	Weekly[1]
3. Cortez Mine Tailings Impoundment 7 (TA-7) Leak Detection Sumps[5] [12 gal sump capacity] Cell 1 North-South (C1NS) Cell 1 East (C1E) Cell 1 West (C1W) Cell 1 West Channel (C1WC) Cell 1 East Channel (C1EC) Underdrain Outlet Channel (UOC) Cell 2 North-South (C2NS) Cell 2 East-West (C2EW) Cell 2 Channel (C2C)	Average daily accumulation (gpd)	Weekly[1]

Identification	Parameter	Frequency
4. Cortez Mine Tailings Impoundment 7 (TA-7) Leak Detection Risers[5] [12 gal sump capacity] Cell 1 North-South (C1NSLC) Cell 1 East (C1ELC) Cell 1 West (C1WLC) Cell 2 North-South (C2NSLC) Cell 2 East-West (C2EWLC)	Average daily accumulation (gpd)	Weekly[1]
5. Pipeline Leak Detection Ports *F-Canyon Ore Stockpiles*: Segregated Ore Stockpile Pad stormwater conveyance (LD-SEG) Stormwater Collection Sump conveyance (LD-SEG3) *Range-Front Declines Area*: Phase 2B Stockpile Pipeline to Event Pond (LD-2BP) Event Pond Pipeline to Portal Underground Washbay (LD-EPP1, LD-EPP2, LD-EPP3) Temporary Shotcrete Sump Pipeline to Portal Underground Washbay (LD-SCSP1, LD-SCSP2) Portal Underground Washbay Pipeline to Cross-Valley Contact Water Pipeline (LD-UWBP1, LD-UWBP2, LD-UWBP3, LD-UWBP4)	As applicable, average daily accumulation or flow (gpd)	Weekly[1]

Identification	Parameter	Frequency
6. Process Solution Pregnant Solution Sump (GV-PSS) Barren Solution Pump Box (GV-BSPB) Water Storage Reservoir (WSRES) Process Solution Pond (GV-PSSP) Emergency/Storm Event Pond (GV-EP) TA-7 Reclaim Solution (RCLAIM) TA-7 Tailings liquid fraction (TAIL7SOLN) Range-Front Declines Event Pond Solution (RF-EPS)	Profile I[2]	Quarterly
7. Leach Pad Ore Grass Valley Heap Leach Pad (GV-HL)	ANP/AGP[4,10]	Quarterly
8. Mined Materials Alluvial Overburden (CH-AO) Cortez Hills Open Pit Waste Rock (CHP-WR) Cortez Pit Complex Waste Rock (CP-WR) Underground Waste Rock (CHUG-WR) Open pit ore only Carbon Ore Stockpile (CH-CO) Open pit ore only Low-grade Ore Stockpile (CH-LO) Open pit ore only Oxide Ore Stockpile on North WRF (CH-OO) Other Mined Material (WR)[7] SLS dry cake solids (SLS-DC) TA-7 Tailings solids (T7SLD);	MWMP[9] -Profile I[2], ANP/AGP[4,10], quantity placed (tons) by type and location;	Quarterly;
Ore shipped to off-site destination (CH-OS);	Quantity shipped (tons), processing destination;	Annually;
HCCUEP Waste Rock	Quantity Placed (tons)	Quarterly

Identification	Parameter	Frequency
9. Facility Monitoring Wells and Piezometers *Downgradient Alluvial Wells:* Grass Valley Heap Leach (PD-03, PD-06) North Waste Rock Facility (MW-96, MW-100) Range-Front Declines Area (MW-79) *Downgradient Bedrock Wells:* Canyon Waste Rock Facility (CHMW-01) South Waste Rock Facility (PD-02) Grass Valley Heap Leach Pad (PD-11) Grass Valley Process Plant and Ponds (PD-10) *Upgradient Bedrock Wells:* Grass Valley Heap Leach Pad and Canyon Waste Rock Facility (PD-07) *Circum-Pit Wells and Piezometers:* CHPZ-133[14], DW-09, DW-16, DW-33, DW-36, DW-37 *Cortez Mine Facility Wells:* Upgradient TA-7 (MW-73) Downgradient TA-7 (MW-74, MW-75) Downgradient SWP (MW-76)	Profile I[2], water and collar elevation (feet AMSL)	Quarterly
10. Fresh Water Reservoir CH-FWR	Average water volume (gal), average freeboard (feet)	Weekly

Identification	Parameter	Frequency
11. F-Canyon Underground Water Handling System and Contact Water[6] Monitoring		
Water Supply Pipeline flow at F-Canyon declines portal (WSP-F);	Average flow (gpm);	Weekly;
Contact Water flow at portal (CW-F)	Average flow (gpm) Profile I[2];	Weekly Quarterly;
Fresh Water Tanks at distribution pipeline outlet (FWT);		
Contact Water Quality at discharge to WSR (CW-Q)	Profile I[2], TPH[15]	Quarterly
12. Surface Water Monitoring		
Cortez Canyon Spring (CCS) Northeast Toiyabe Range Seep (NETRS)	Profile I[2], flow (gpm)	Quarterly
13. Pit Lake Monitoring		
Cortez Pit;	Presence of Water[16];	Quarterly;
General Monitoring – each pit lake;	Photograph, lake surface elevation (feet AMSL), maximum lake depth (feet), lake area (acres);	Monthly;
Water Column Monitoring[17] – each pit lake;	Continuous field temperature (°F)[18] and specific conductance (µS/cm)[18] with depth (feet);	Monthly;
Surface Samples[19] – each pit lake;	Field pH (SU)[18], field Eh (mV)[18]; Profile III[13];	Monthly; Quarterly;
Depth Samples[20] – each pit lake that is >25 feet deep or has an outflow to groundwater	Field pH (SU)[18], field Eh (mV)[18], depth below surface (feet); Profile I[2], depth below surface (feet)	Monthly; Quarterly

Identification	Parameter	Frequency
14. Cortez Mine Stormwater Pond (SWP)		
Pond Solution (SWP-CS) Groundwater Monitoring and Dewatering Port Solution (SWP-GWP) [202,000 gal]	Pond and Port solution elevation (feet AMSL)[8];	Weekly[1];
	Date(s), volume (gal), and Profile I[2] when Pond or Port are evacuated[8]	When evacuated
15. Cortez Mine Underdrain Pond (UDP) [sump capacity as available]		
Leak Detection Sump 1 (UDP-LD1) [318 gal] Leak Detection Sump 2 (UDP-LD2) [373 gal];	Average daily accumulation (gpd);	Weekly[1];
Pond Solution (UDP-CS) Groundwater Monitoring and Dewatering Port Solution (UDP-GWP)	Pond and Port solution elevation (feet AMSL)[8];	Weekly[1];
	Date(s), volume (gal), and Profile I[2] when Pond or Port are evacuated[8]	When evacuated
16. Petroleum-Contaminated Soil (PCS) Hazardous Waste Determinations		
Each PCS source	Hazardous waste determination[12]	When required[12]

The Permittee may request a reduction of the monitoring frequency after four quarters of complete monitoring based on justification other than cost. Such reductions may be considered modifications to the Permit and require payment of modification fees.

Abbreviations and Definitions:

AMSL = above mean sea level; ANP/AGP = Acid Neutralizing Potential:Acid Generation Potential ratio; ASTM = American Society for Testing and Materials; $CaCO_3$ = calcium carbonate; CFR = Code of Federal Regulations; Eh = chemical reduction potential; EPA = U.S. Environmental Protection Agency; epilimnion = the uppermost layer in a stratified lake; gal = gallons; gpd = gallons per day; gpm = gallons per minute; hypolimnion = a lower layer in a thermally stratified lake below the metalimnion; metalimnion = a middle layer in a thermally stratified lake

characterized by a temperature decrease with depth; mg/L = milligrams per liter; monimolimnion = the lower layer in a chemically stratified lake that does not mix with other layers; mV = millivolts; MWMP = Meteoric Water Mobility Procedure; N = nitrogen; NAC = Nevada Administrative Code; NDEP = Nevada Division of Environmental Protection; PCS = Petroleum-Contaminated Soil; pH = the negative of the base 10 logarithm of the activity of the hydrogen ion; stratified = a pit lake that has distinct chemical and/or temperature layers; SU = standard units for pH measurement; SVOCs = semi-volatile organic compounds; TPH = total petroleum hydrocarbons; VOCs = volatile organic compounds; WAD = weak acid dissociable; > = greater than; ≥ = greater than or equal to; < = less than; °F = degrees Fahrenheit; µg/L = micrograms per liter; µS/cm = microSiemens per centimeter

Footnotes:

(1) The sump or riser port must be inspected and evacuated on a more frequent basis than weekly if the fluid level is above the top of the sump or the invert of any pipe which discharges into the sump, whichever level is lower, or if the potential exists to exceed the sump capacity. Records are required documenting volume, date and time of extraction to show that sumps and riser ports are maintained in this condition. For passively draining pipeline ports, inspect and measure flow in gpd. For all sumps and ports, report 0 gpd if dry.

(2) Profile I:

Alkalinity (as $CaCO_3$):	Cadmium	Magnesium	Silver
Bicarbonate	Calcium	Manganese	Sodium
Total	Chloride	Mercury	Sulfate
Aluminum	Chromium	Nitrate + Nitrite (as N)	Thallium
Antimony	Copper	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Fluoride	pH (± 0.1 SU) (3)	WAD Cyanide
Barium	Iron	Potassium	Zinc
Beryllium	Lead	Selenium	-

(3) All sample analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as $CaCO_3$ equivalent).

(4) When static testing(10) characterization of Mined Materials shows the potential for acid generation as set forth in the current version of the Division guidance document "Waste Rock, Overburden, and Ore Evaluation", the Permittee shall, as applicable, notify the Division in writing and initiate kinetic testing(11) within 10 days.

If the kinetic test results indicate acid generation conditions exist, the Permittee shall submit in writing, within 30 days, the methods proposed for providing containment of these materials and the anticipated impact this acid generation

potential may have on final stabilization of all components affected as defined in NAC 445A.359.

(5) The identified Leak Detection Sumps monitor the zone above the prepared subgrade and beneath the compacted low hydraulic conductivity soil layer (LHCSL). The identified Leak Collection Risers monitor the zone above the LHCSL and beneath the HDPE liner. All sumps and risers are compliance monitoring locations.

(6) Use or storage of Contact Water, other than in process or within approved containment, respectively, must have prior written authorization from the Division.

(7) Characterization requirements shall also apply to material generated during exploration or feasibility bulk sample testing activities.

(8) The Groundwater Port must be inspected, and evacuated as needed, to maintain the Port solution elevation below 4,773 feet AMSL. Solution evacuated from the Pond and Port shall be discharged only to approved containment. A maximum of one Profile $I^{(2)}$ analysis each of evacuated Pond and Port solution is required per quarter.

(9) The Meteoric Water Mobility Procedure (MWMP) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method E 2242 (or the most current method).

(10) Acid Neutralizing Potential/Acid Generating Potential (ANP/AGP, also known as static testing or acid-base accounting) shall be performed by a Nevada-approved laboratory, using a LECO-type analysis, with full sulfur speciation if ANP/AGP < 1.2, in accordance with the most current update of the Nevada Modified Sobek Procedure.

(11) Kinetic testing (humidity cell testing) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method D 5744-07 Option 'A' (or the most current approved method); tests shall be run for a minimum of 20 weeks and for a longer duration if warranted or recommended by the analytical laboratory or required by the Division; samples shall be collected weekly (all weeks) and measurements shall be recorded for redox potential, pH, specific conductance (µS/cm), acidity and/or alkalinity (as deemed appropriate by the laboratory), sulfate, iron (total, plus ferric and ferrous speciation if total iron > 0.6 mg/L and pH < 5 SU), and dissolved calcium and magnesium; weekly filtered extracts per the method will be digested and analyzed for total recoverable concentrations during week 0, 1, 2, 4, 8, 12, 16, and 20; four-week extracts thereafter (i.e., week 24, 28, 32, etc.) shall be analyzed by a Nevada-certified analytical laboratory for Profile $I^{(2)}$ parameters, and specific conductance (µS/cm) and acidity and/or alkalinity shall be recorded as recommended by the analytical laboratory; final results reported shall include initial and final static test results$^{(10)}$, a Profile $I^{(2)}$ analysis of the final leachate,

all kinetic test results above, and any additional analyses required by the Division.

(12) A hazardous waste determination is required: a) Initially, for each PCS source prior to management under the PCS Management Plan; b) When a PCS waste stream is suspected to have changed character since the last determination; and c) When a hazardous constituent is detected during screening analyses at a concentration suggestive of hazardous waste. Determinations must be performed pursuant to 40 CFR 262.11 using operator knowledge and/or applicable analytical testing methods described in EPA publication SW-846. Operator knowledge must be adequately described and sufficient to justify the determination.

(13) Profile III:

Alkalinity (as $CaCO_3$)	Calcium	Mercury	Strontium
Bicarbonate	Chloride	Molybdenum	Sulfate
Total	Chromium	Nickel	Thallium
Aluminum	Copper	Nitrate + Nitrite (as N)	Tin
Antimony	Fluoride	Nitrogen, Total (as N)	Total Dissolved Solids
Arsenic	Iron	pH (± 0.1 SU) (3)	Total Suspended Solids
Barium	Lead	Phosphorus	Uranium
Beryllium	Lithium	Potassium	Vanadium
Boron	Magnesium	Selenium	Zinc
Cadmium	Manganese	Sodium	-

(14) Water and collar elevations only; no water quality sampling or analysis required.

(15) Total Petroleum Hydrocarbons (TPH) analyzed by a Nevada-certified laboratory using EPA Method 8015 Modified. If any gasoline-range petroleum is suspected, or if the source-type is unknown, both TPH-P (purgeable) and TPH-E (extractable) are required. Otherwise, only TPH-E is required.

(16) For presence of water, state whether the pit surface is dry, damp, or wet (ponded or flowing water). If ponded water has been present for at least one year, the Permittee shall perform the required monitoring for pit lakes.

(17) A continuous temperature-conductivity profile shall be completed for the entire water column at the deepest location in each pit lake.

(18) Field measurements (e.g., temperature, specific conductance, pH, Eh, etc.) shall be made at the Project site concurrent with the monitoring activity using a calibrated instrument, and do not require analysis by a laboratory certified or approved by the State of Nevada as otherwise specified in Part II.E.5. Field measurements must be accompanied by appropriate calibration information.

(19) The surface samples must be collected less than 10 feet below the surface of the pit lake.

(20) Depth sampling shall be performed at the deepest location in each pit lake. The number and depth of samples shall be determined based on the temperature-conductivity profile of the water column at the time of sampling. If the lake is stratified, collect a separate depth sample from each distinct layer in the water column (e.g., from the epilimnion, metalimnion, hypolimnion, and monimolimnion, as applicable; however, note that the quarterly sample from the surface layer [epilimnion] must be analyzed for Profile III constituents per the surface sample requirements whereas the quarterly depth samples from all other layers are analyzed for Profile I constituents). If the lake is unstratified and between 25 and 50 feet deep, collect one depth sample from the lower half of the water column. If the lake is unstratified and greater than 50 feet deep, collect two depth samples consisting of an intermediate sample from the middle third of the water column and a deep sample from the lower third of the water column. If the lake is less than 25 feet deep but includes an outflow to groundwater (i.e., it is a hydrologic flow-through pit lake), collect a quarterly Profile I surface sample in addition to the quarterly Profile III surface sample.

E. Quarterly and annual monitoring reports and release reporting shall be in accordance with Part II.B.

F. All sampling and analytical accuracy shall be in accordance with Part II.E.

G. Permit Limitations

1. The daily accumulation of flow exceeding 20 gallons per day averaged over the quarter in the leak detection sumps or ports identified in Part I.D.3.
2. The daily accumulation of flow exceeding 10 gallons per day averaged over the year in the leak detection sumps or ports identified in Part I.D.3.
3. The daily accumulation of flow exceeding 75 gallons per day averaged over the quarter in the leak detection risers identified in Part I.D.4.
4. The daily accumulation of flow exceeding 25 gallons per day averaged over the year in the leak detection risers identified in Part I.D.4.
5. The daily accumulation of flow exceeding 150 gallons per day averaged over the quarter in the leak detection sumps identified in Parts I.D.2, I.D.5, and I.D.15.
6. The daily accumulation of flow exceeding 50 gallons per day averaged over the year in the leak detection sumps identified in Parts I.D.2, I.D.5, and I.D.15.
7. Failure to meet a Schedule of Compliance date.
8. The normal supernatant pool operating depth in the Cortez Mine Tailings Impoundment 7 (TA-7) shall not exceed the approved design limit of 3 feet.

9. Except as may otherwise be required by design or allowed as a condition of this Permit, a minimum operating freeboard of 2 feet in all ponds.

10. The storage of process solution in any single-lined pond is not authorized for more than 20 consecutive days for any single event.

11. The Phase I, Phase II, and Phase III heap leach pads, as measured vertically from the top of the synthetic liner for any point on the pad, loaded in excess of a maximum approved design elevation of 300 feet over the 80-mil HDPE liner

12. The Phase I, Phase II, and Phase III heap leach pads shall be constructed with perimeter rockfill buttresses having a minimum 80-foot horizontal width. The rockfill buttresses shall be constructed on the western, southwestern, and southern sides of Phase I, on the eastern and southern sides of Phase II, and on the west, north, and east sides of Phase III.

13. The cumulative solution application rate to the heap leach pad in excess of the maximum approved design 15,000 gpm. Additionally, the solution application rate *per unit area* should not exceed the approved design limit of 0.005 gpm per square foot.

14. The storage of process solution in the Cortez Mine Stormwater Pond (SWP), a single-lined pond, is not authorized for more than 20 consecutive days for any single event or for any event that raises the Cortez Mine Underdrain Pond (UDP) solution elevation above the spillway invert elevation of 4,776 feet AMSL.

15. The Permittee shall provide written notification to the Division within 30 days of a Groundwater Port water elevation in either the 'SWP' or 'UDP' exceeding 4,770 feet AMSL and initiate construction of the Groundwater Dewatering System, in accordance with the design approved as an engineering design change modification approved 12 August 2009, to achieve completion within 12 months of the date of notification.

16. No PCS shall be disposed of on-site. All PCS must be moved to the Pipeline Project (NEV0093109) per the Division-approve PCS Management Plan. .

17. Any flocculant used in the SLS Plant must have prior Division approval.

18. The SLS Plant solids storage area shall be routinely inspected and appropriate measures shall be taken to prevent tracking of dry cake solids off containment and the associated drain trough shall be kept clear of debris and solids build-up to ensure proper function and conveyance of collected fluids to approved containment.

19. Storage of ore from the Cortez Hills underground operation is authorized only on the appropriate portion of the F-Canyon Ore Storage Pad, the Range-Front Declines ore stockpile pads, or other containment approved by the Division for that purpose. At the end of each 12-hour shift during which the Metals Removal Plant or radial stacker at the F-Canyon Upper Non-Segregated Ore Stockpile Pad is operated, all areas without GCL installation near the Metals Removal

Plant and radial stacker shall be inspected and any ore spillage shall be removed and placed back on the Upper Non-Segregated Ore Stockpile Pad or on other containment approved by the Division. Berms, barricades, internal drainage ditches, and external diversion ditches, as appropriate, associated with the F-Canyon Ore Storage Pad must be maintained, and signage placed as appropriate, to delineate the limits of pad containment and to prevent stormwater run-on to the pads and run-off from the pads.

20. Placement of ore on the F-Canyon Ore Storage Pad is limited to: a maximum 12-foot height and a minimum 6-foot setback on the Segregated Ore Stockpile, east and west pads, and the Upper Non-Segregated Ore Stockpile Pad; and to a maximum 30-foot height and a minimum 15-foot setback on the Lower Non-Segregated Ore Stockpile Pad. A minimum 3-foot-thick layer of overliner material must be maintained on all pads to protect the liner or GCL, as applicable, and the solution collection system.

21. Mining shall not extend below 2,500 feet AMSL, unless approved by the Division based on representative characterization of the ore and waste rock to be extracted and plans to mitigate any potential for degradation of waters of the State, as warranted.

Exceedances of these limitations may be Permit violations and shall be reported as specified in Part II.B.4.

H. The facility shall maintain an automated or manual calibrated rain gauge, which shall be monitored at least daily to record precipitation (inches of water). A written and/or electronic record of daily accumulations of precipitation shall be maintained on site.

I. The Permittee shall inspect all control devices, systems and facilities weekly, and during (when possible) and after major storm events. These inspections are performed to detect evidence of:

1. Deterioration, malfunction, or improper operation of control or monitoring systems;
2. Sudden changes in the data from any monitoring device;
3. The presence of liquids in leak detection systems; and
4. Severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.

J. Prior to initiating permanent closure activities at the facility or any process component within the facility, the Permittee must have an approved final plan for permanent closure.

K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting July 1 after the effective date of this Permit and every year thereafter until the Permit is terminated or the facility has received final closure certification from the Division.

L. The Permittee shall not dispose of or treat Petroleum-Contaminated Soil (PCS) on the mine site without first obtaining from the Division approval of a PCS Management Plan. The approved PCS Management Plan and the Division Guidance for Mine-Site PCS Management Plans are hereby incorporated into this Permit by reference.

M. When performing dust suppression activities, the Permittee shall use best management practices and appropriate selection of water source and additives to prevent degradation of waters of the State. If a dust suppressant exceeds a water quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall demonstrate no potential to degrade waters of the State.

N. Continuing Investigations:

1. The Permittee shall submit to the Division for review and approval an updated groundwater flow model and pit lake study with each Permit renewal and with any application to modify the Permit that could affect the pit lake predictive model. The submittal shall also include an ecological risk assessment if the predictive pit lake model indicates the potential for exceedance of a Division Profile III reference value, unless the constituent concentration for each predicted Profile III exceedance is no greater than the concentration evaluated in a previous Division-approved ecological risk assessment for the Project. These studies and assessments shall address, at a minimum, the requirements of NAC 445A.429, and shall include all available data, alternative pit lake or backfill scenarios, and mitigations to reduce ecological risk and the potential to degrade groundwater, as applicable. Approval may require modification of the Permit and payment of modification fees

2. The Permittee shall submit to the Division for review and approval an updated waste rock management plan (WRMP) with each Permit renewal and with any application to modify the Permit that could affect the WRMP. A revised WRMP must also be approved prior to initiating mining or in-pit backfill activities not previously approved. The WRMP must include representative characterization data for all anticipated waste rock and overburden in accordance with the current version of the Division guidance document "Waste Rock, Overburden, and Ore Evaluation," in addition to a detailed description of how, when, and where the materials will be managed and monitored, and appropriate controls to eliminate any potential to degrade waters of the State, if applicable. Approval may require modification of the Permit and payment of modification fees.

II. General Facility Conditions and Limitations

A. General Requirements

1. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the Permit upon commencement of each relevant activity. The Administrator may, upon the request of the Permittee and after public notice (if

required), revise or modify a Schedule of Compliance in an issued Permit if he or she determines good and valid cause (such as an act of God, a labor strike, materials shortage or other event over which Permittee has little or no control) exists for such revision.

2. The Permittee shall at all times maintain in good working order and operate as efficiently as possible, all devices, facilities, or systems installed or used by the Permittee to achieve compliance with the terms and conditions of this Permit.

3. Whenever the Permittee becomes aware that he or she failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Administrator, the Permittee shall promptly submit such facts or correct information. Any inaccuracies found in this information may be grounds for revocation or modification of this Permit and appropriate enforcement action.

B. Reporting Requirements

1. The Permittee shall submit quarterly reports, in both hard copy and a Division-approved electronic format, which are due to the Division on or before the 28th day of the month following the quarter and must contain the following:

   a. Monitoring results from the leak detection systems identified in Parts I.D.2, I.D.3, I.D.4, I.D.5, and I.D.15, reported on Nevada Division of Environmental Protection (NDEP) Form 0590 or equivalent;

   b. As applicable, analytical results for the solution collected from monitoring locations identified in Parts I.D.6, I.D.9, I.D.11, I.D.12, I.D.14, and I.D.15, reported on NDEP Form 0190 (as appropriate) or equivalent;

   c. Water and collar elevations for the facility monitoring wells identified in Part I.D.9;

   d. A table or graph of average weekly water volume and freeboard measurements for the location identified in Part I.D.10;

   e. Flow rates for the monitoring locations identified in Parts I.D.11 and I.D.12;

   f. Analytical results of applicable MWMP-Profile I and/or ANP/AGP testing, as applicable, for the materials identified in Parts I.D.7 and I.D.8, reported on NDEP Form 0190 (as appropriate) or equivalent;

   g. Analytical results, reported on NDEP Form 0290 and NDEP Form 0190 or equivalent, as applicable, for water quality samples collected, and graphs or tables of other monitoring and quantification data collected for any pit lake identified in accordance with Part I.D.13;

   h. Tables and/or graphs of solution elevation data and solution evacuation dates and volumes, as applicable, for the monitoring locations identified in Parts I.D.14 and I.D.15;

i. A record of releases, and the remedial actions taken in accordance with the approved Emergency Response Plan on NDEP Form 0490 or equivalent;

j. Copies of hazardous waste determinations, identified in Part I.D.16, pertaining to the approved PCS Management Plan;

k. An updated list of all PCS sources managed under the approved PCS Management Plan, with any new or changed sources highlighted, reported on NDEP Form PCS-01 or equivalent; and

l. For any kinetic test initiated, continued, or terminated with Division approval, during the quarter, provide a brief report of the test status and an evaluation of the results to date, which shall include all analytical data generated from the date testing was initiated through the reporting quarter.

Facilities which have not initiated mining or construction, must submit a quarterly report identifying the status of mining or construction. Subsequent to any noncompliance or any facility expansion which provides increased capacity, the Division may require an accelerated monitoring frequency.

2. The Permittee shall submit an annual report, in both hard copy and a Division-approved electronic format, by February 28th of each year, for the preceding calendar year, which contains the following:

a. Analytical results of water quality samples collected from the make-up water supply identified in Part I.D.1, reported on NDEP Form 0190 or equivalent;

b. A synopsis of releases on NDEP Form 0390 or equivalent;

c. A brief summary of site operations, including the number of tons of ore milled or placed on heaps (as applicable) during the year, construction and expansion activities, and major problems with the fluid management system;

d. A table of the number of tons and identification of any Nevada-permitted facility for ore material shipped off site for processing, and the number of tons of ore material shipped and the name and location of each out-of-State processing facility;

e. A table of total monthly precipitation amounts recorded in accordance with Part I.H, reported for a five-year history previous to the date of submittal;

f. An updated version of the facility monitoring and sampling procedures and protocols;

g. An updated evaluation of the closure plans using specific characterization data for each process component with respect to achieving stabilization; and

h. Graphs of leak detection flow rates and piezometer readings, and graphs of pH, total dissolved solids (TDS), sulfate, chloride, nitrate + nitrite (as N), WAD cyanide, fluoride, zinc, and arsenic concentration (as applicable),

versus time for all fluid sampling points. The graphs shall display a five-year history previous to the date of submittal. Additional parameters may be required by the Division if deemed necessary.

3. Release Reporting Requirements: The following applies to facilities with an approved Emergency Response Plan. If a site does not have an approved Emergency Response Plan, then all releases must be reported as per NAC 445A.347 or NAC 445A.3473, as appropriate.

   a. A release of any quantity of hazardous substance, as defined at NAC 445A.3454, to surface water, or that threatens a vulnerable resource, as defined at NAC 445A.3459, must be reported to the Division as soon as practicable after knowledge of the release, and after the Permittee notifies any emergency response agencies, if required, and initiates any action required to prevent or abate any imminent danger to the environment or the health or safety of persons. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b.

   b. A release of a hazardous substance in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 CFR Part 302 must be reported as required by NAC 445A.3473 and Part II.B.3.a.

   c. A release of a non-petroleum hazardous substance not subject to Parts II.B.3.a. or II.B.3.b., released to soil or other surfaces of land, and the total quantity is equal to or exceeds 500 gallons or 4,000 pounds, or that is discovered in or on groundwater in any quantity, shall be reported to the Division no later than 5:00 P.M. of the first working day after knowledge of the release. An oral report shall be made by telephone to (888) 331-6337 for in-State callers or (775) 687-9485 for out-of-State callers, and a written report shall be provided within 10 days in accordance with Part II.B.4.b. Smaller releases, with total quantity greater than 25 gallons or 200 pounds and less than 500 gallons or 4,000 pounds, released to soil or other surfaces of land, or discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

   d. Petroleum Products and Coolants: If a release is subject to Parts II.B.3.a. or II.B.3.b., report as specified in Part II.B.3.a. Otherwise, if a release of any quantity is discovered on or in groundwater, or if the total quantity is equal to or greater than 100 gallons released to soil or other surfaces of land, report as specified in Part II.B.3.c. Smaller releases, with total quantity greater than 25 gallons but less than 100 gallons, released to soil or other surfaces of land, or if discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.

4. The Permittee shall report to the Administrator any noncompliance with the Permit.

   a. Each such event shall be reported orally by telephone to (775) 687-9400, not later than 5:00 P.M. of the next regular work day from the time the Permittee has knowledge of the circumstances. This report shall include the following:

      i. Name, address, and telephone number of the owner or operator;

      ii. Name, address, and telephone number of the facility;

      iii. Date, time, and type of incident, condition, or circumstance;

      iv. If reportable hazardous substances were released, identify material and report total gallons and quantity of contaminant;

      v. Human and animal mortality or injury;

      vi. An assessment of actual or potential hazard to human health and the environment outside the facility; and

      vii. If applicable, the estimated quantity of material that will be disposed and the disposal location.

   b. A written summary shall be provided within 10 days of the time the Permittee makes the oral report. The written summary shall contain:

      i. A description of the incident and its cause;

      ii. The periods of the incident (including exact dates and times);

      iii. If reportable hazardous substances were released, the steps taken and planned to complete, as soon as reasonably practicable, an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269;

      iv. Whether the cause and its consequences have been corrected, and if not, the anticipated time each is expected to continue; and

      v. The steps taken or planned to reduce, eliminate, and prevent recurrence of the event.

   c. The Permittee shall take all available and reasonable actions, including more frequent and enhanced monitoring to:

      i. Determine the effect and extent of each incident;

      ii. Minimize any potential impact to the waters of the State arising from each incident;

      iii. Minimize the effect of each incident upon domestic animals and all wildlife; and

      iv. Minimize the endangerment of the public health and safety which arises from each incident.

d. If required by the Division, the Permittee shall submit, as soon as reasonably practicable, a final written report summarizing any related actions, assessments, or evaluations not included in the report required in Part II.B.4.b., and including any other information necessary to determine and minimize the potential for degradation of waters of the State and the impact to human health and the environment. Submittal of the final report does not relieve the Permittee from any additional actions, assessments, or evaluations that may be required by the Division.

C. Administrative Requirements

1. A valid Permit must be maintained until permanent closure is complete. Therefore, unless permanent closure has been completed and termination of the Permit has been approved in writing by the Division, the Permittee shall apply for Permit renewal not later than 120 days before the Permit expires.

2. Except as required by NAC 445A.419 for a Permit transfer, the Permittee shall submit current Permit contact information described in paragraphs (a) through (c) of subsection 2 of NAC 445A.394 within 30 days after any change in previously submitted information.

3. All reports and other information requested by the Administrator shall be signed and certified as required by NAC 445A.231.

4. All reports required by this Permit, including, but not limited to, monitoring reports, corrective action reports, and as-built reports, as applicable, and all applications for Permit modifications, shall be submitted in both hard copy and a Division-approved electronic format.

5. When ordered consistent with Nevada Statutes, the Permittee shall furnish any relevant information in order to determine whether cause exists for modifying, revoking and reissuing, or permanently revoking this Permit, or to determine compliance with this Permit.

6. The Permittee shall maintain a copy of, and all modifications to, the current Permit at the permitted facilities at all times.

7. The Permittee is required to retain during operation, closure and post-closure monitoring, all records of monitoring activities and analytical results, including all original strip chart or data logger recordings for continuous monitoring instrumentation, and all calibration and maintenance records. This period of retention must be extended during the course of any unresolved litigation.

8. The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not thereby be affected.

9. The Permittee is authorized to manage fluids and solid wastes in accordance with the conditions of this Permit. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any

injury to persons or property, any invasion of other private rights, or any infringement of Federal, State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Water Pollution Control Statutes for releases or discharges from facilities or units not regulated by this Permit. NRS 445A.675 provides that any person who violates a Permit condition is subject to administrative or judicial action provided in NRS 445A.690 through 445A.705.

D. Division Authority

The Permittee shall allow authorized representatives of the Division, at reasonable times, and upon the presentation of credentials to:

1. Enter the premises of the Permittee where a regulated activity is conducted or where records are kept per the conditions of this Permit;
2. Have access to and copy any record that must be kept per the conditions of this Permit;
3. Inspect and photograph any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by this Permit; and
4. Sample or monitor for any substance or parameter at any location for the purposes of assuring Permit and regulatory compliance.

E. Sampling and Analysis Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. For each measurement or sample taken pursuant to the conditions of this Permit, the Permittee shall record the following information:
   a. The exact place, date, and time of the inspection, observation, measurement, or sampling; and
   b. The person(s) who inspected, observed, measured, or sampled.
3. Samples must be taken, preserved, and labeled according to Division approved methods.
4. Standard environmental monitoring chain of custody procedures must be followed.
5. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must identify in all required reports the certified and approved laboratories used to perform the analyses, laboratory reference numbers, and sample dates, and for the electronic version of each report only, include all associated laboratory analytical reports, including test results, test methods, chain-of-custody forms, and quality assurance/quality control documentation.
6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and be reliable to at least two significant digits. The

analytical methods used must have a practical quantitation limit (PQL) equal to or less than one-half the reference value for Profile I and Profile III parameters. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples for Profile I parameters shall be filtered and analyzed for the dissolved fraction, unless otherwise required by the Division; samples for Profile III parameters shall be unfiltered and analyzed for the total recoverable fraction. Unless otherwise approved by the Division, analytical results that are less than the PQL shall be reported quantitatively by listing the PQL value preceded by the "<" symbol.

F. Permit Modification Requirements

1. Any material modification, as defined at NAC 445A.365, plan to construct a new process component, or proposed change to Permit requirements must be reported to the Division by submittal of an application for a Permit modification, or if such changes are in conformance with the existing Permit, by submittal of a written notice of the changes. The Permit modification application must comply with NAC 445A.391 through 445A.399, 445A.410, 445A.412, 445A.414, 445A.4155, 445A.416, 445A.417, 445A.440, and 445A.442, as applicable. The construction or modification shall not commence, nor shall a change to the Permit be effective, until written Division approval is obtained.

2. Prior to the commencement of mining activities at any site within the State which is owned or operated by the Permittee but not identified and characterized in a previously submitted application or report, the Permittee shall submit to the Division a report which identifies the locations of the proposed mine areas and waste disposal sites, and characterizes the potential of mined materials and areas to release pollutants. Prior to development of these areas the Division shall determine if any of these new sources will be classified as process components and require engineered containment as well as Permit modification.

3. The Permittee shall notify the Division in writing at least 30 days before the introduction of process solution into a new process component or into an existing process component that has been materially modified, or of the intent to commence active operation of that process component. Before introducing process solution or commencing active operation, the Permittee shall obtain written authorization from the Division.

4. The Permittee must obtain a written determination from the Administrator of any planned process component construction or material modification, or any proposed change to Permit requirements, as to whether it is considered a Permit modification, and if so, what type.

5. The Permittee must give advance notice to the Administrator of any planned changes or activities which are not material modifications in the permitted facility that may result in noncompliance with Permit requirements.

Prepared by: Natasha Zittel
Date: 25 June 2018

Revision 00: Renewed/Major Modification Permit, effective DATE

FACT SHEET

(Pursuant to Nevada Administrative Code (NAC) 445A.401)

Permittee Name: **Cortez Joint Venture dba Barrick Cortez Inc.**

Project Name: **Cortez Hills Project**

Permit Number: **NEV2007106**

Review Type/Year/Revision: **Renewal 2018, Fact Sheet Revision 00**

A. Location and General Description

Location: The **Cortez Hills Project** is located in north-central Nevada in eastern Lander County and westernmost Eureka County, approximately 37 miles southeast of the town of Battle Mountain. The facility is situated approximately 1 mile south of the Cortez Mine (Water Pollution Control Permit (WPCP) NEV0000023), approximately 9 miles southeast of the Pipeline Project (WPCP NEV0093109), and approximately 7 miles east-southeast of the Pipeline Infiltration Project (WPCP NEV0095111), at the south end of Crescent Valley. The facilities are located within Sections 1, 2, 12, 13, and 24, Township 26 North, Range 47 East (T26N, R47E); Sections 5, 6, 7, 8, 17, 18, 19, and 20, T26N, R48E; Sections 12, 13, 14, 23, 24, 25, 26, 35, and 36, T27N, R47E; and Sections 18, 19, 30, 31, and 32, T27N, R48E, Mount Diablo Baseline and Meridian, on both private land and public land administered by the U.S. Bureau of Land Management, Mount Lewis Field Office, Battle Mountain. The site may be accessed by traveling 40 miles west from Elko, or 30 miles east from Battle Mountain, on Interstate Highway 80, then approximately 31 miles south on Nevada State Route 306, and approximately 9 miles southeast on Lander County Road 222.

General Description: The Cortez Hills Project facilities consist of both a surface open pit (Cortez, and Cortez Hills pits) and an underground gold mine (Range Front Declines and F-Canyon Portal) with associated dewatering systems, four waste rock disposal facilities, a heap leach pad, a carbon-in-column process plant for processing heap leach solution, a Pregnant Solution Sump (tank) with hydraulically linked Process Solution Pond, an Emergency/Storm Event Pond, portions of an existing cross-valley water conveyance system, ore stockpiles, a primary crusher, a cross-valley mill-grade ore conveyor to the Pipeline Mill #2, upgradient and downgradient groundwater monitoring wells, a water supply well, dewatering wells and sumps, and ancillary facilities for administrative, operational, and maintenance support. As proposed, the Project has a life of at least 13 years, which includes 10 years of active mining plus three years for completion of ore processing and pre-closure activities.

B. Synopsis

General: Mining in the Cortez Mining District began with the discovery of silver ores in 1862 along the western base of Mount Tenabo. Silver mining continued in

this area from extensive underground workings until the 1930's. The modern era of gold production began in 1968 at the Cortez Mine, located at the base of the Cortez Mountains on the southeast edge of Crescent Valley, and continued with production of oxide gold ore from Cortez Mine open pits during the periods of 1969 to 1973 and 1983 to 1988. Mining of oxidized gold ores occurred at the Gold Acres open pit, located on the east flank of the Shoshone Range at the west side of Crescent Valley, from 1973 to 1976, and was followed by mining and treatment of refractory gold ores from 1990 to 1996. Refractory gold ores were mined from the Horse Canyon and South Silicified open pits, located on the east side of the Cortez Mountains, from 1988 to 1993. Mining of oxide gold ores from the Pipeline and South Pipeline open pits, located at the east toe of the Shoshone Range on the west edge of Crescent Valley, commenced in 1996 and continues to the present time.

The Cortez Hills Project involves mining primarily oxide gold ore from the Cortez, Cortez Hills, and Pediment pits and the Cortez Hills underground mine located on the western flank of Mount Tenabo in the Cortez Mountains. Ore analyses indicate that meteoric water that contacts the ore may mobilize arsenic and antimony in concentrations that exceed drinking water standards. However, the Permittee has demonstrated that this will not create the potential to degrade waters of the State, because arsenic and antimony concentrations will be reduced below drinking water standards after the meteoric water infiltrates through 3 to 10 feet of alluvium. Ore from the Cortez Hills underground mine also contains mercury concentrations high enough to warrant engineered containment for ore stockpiles and other facilities associated with the underground mine, as described in detail below.

The Cortez Hills Project is owned by the Cortez Joint Venture, which was established in October 1963 and is currently comprised of Barrick Cortez Inc. (60 percent (%)) and Barrick Gold Finance Inc. (40%). Barrick Cortez Inc. is the operator of the Joint Venture.

Surface Mining: The majority of ore and waste rock will be excavated by surface mining from the Cortez and Cortez Hills pits. The 2018 major modification includes the expansion of the following: the existing Cortez Pit Complex, Cortez Hills Pit to the south and east creating the Pediment East (with the option to backfill the Cortez Hills Pit) and South Pits, and expansion of the existing Cortez Waste Rock Facility.

The Cortez and Cortez Hills pit expansions will penetrate the groundwater table and, at the end of mining and with shutdown of the dewatering system, groundwater is expected to rebound to form a pit lake. Cortez Pit will be mined to a depth of 4,500 feet above mean sea level (AMSL) and groundwater is expected to rebound to an elevation of approximately 4,800 feet AMSL. The Cortez Hills Pit will be mined to a depth of 4,525 feet AMSL, and groundwater is expected to rebound to approximately 4,840 feet AMSL. To preclude the formation of a pit lake, the Cortez Hills Pit may be backfilled to an elevation of 4,865 feet AMSL. Please see

the section ***Pit Lake Assessment*** for the water quality of the pit lake and groundwater predictions.

The daily average surface mining rate, ore plus waste, is anticipated to range from approximately 300,000 to 450,000 tons per day (tpd) with a maximum daily mining rate of 600,000 tpd. Mill-grade ore is transported by 300- to 400-ton capacity haul trucks to the Cortez Hills primary crusher/cross-valley conveyor system that transports the crushed ore to the Pipeline Mill #2 ore stockpile (WPCP NEV0093109). Heap leach-grade ore will be hauled by truck directly to the Grass Valley Heap Leach Pad (also known as Area 34) for placement and leaching as uncrushed run-of-mine (ROM) ore, see section ***Grass Valley (Area 34) Heap Leach Pad*** for more information.

Surface support facilities near the pit may include infrastructure for operations, engineering, geology, maintenance, warehousing, change rooms, a back-up power system, cement silo(s), laydown yard(s), fuel storage, parking lot, air compressors, an explosives magazine, a temporary ore stockpile, aggregate backfill storage, and a shotcrete plant. Some existing and upgraded light vehicle maintenance and fueling facilities and reagent storage areas would be utilized at the adjacent Cortez Mine (WPCP NEV0000023) site.

Underground Mining: Two sets of twin-declines are used to access underground mining areas located between elevations below approximately 4,600 feet AMSL and above a maximum permitted depth of approximately 3,800 feet AMSL. The 2018 modification extends the permitted depth of the declines to 2,500 feet AMSL. The lateral extent of the underground mine workings area will be approximately 3,000 feet wide by 4,500 feet long. The twin-decline, F-Canyon Portal is collared in the existing F-Canyon Pit and was constructed as part of the approved pre-mining, underground exploration activities. A minor modification approved by the Division in November 2015 authorized construction of a second set of twin declines, and associated infrastructure, at the Range-Front Declines area.

F-Canyon Declines: The F-Canyon declines measure approximately 18 feet high by 16.5 feet wide to accommodate mining equipment, piping, ventilation ductwork, and a possible underground conveyor system. Construction of the F-Canyon Declines began in July 2005. Underground support facilities may include pump stations, sumps, explosives magazines, fuel storage areas, and laydown areas. Ground support consists of rock bolts, wire mesh, shotcrete, cemented rock fill, and other appropriate underground methods, which may change as mining progresses.

F-Canyon Storage Pad: Ore mined from the F-Canyon declines may contain elemental mercury, therefore the F-Canyon Ore Storage Pad was constructed. The original F-Canyon Storage Pad was constructed in 2010 without Division approval and on 20 March 2012, the Division issued a Finding of Alleged Violation and Order which required the submittal of an EDC to improve the ore storage pad to

minimum design criteria. The EDC was approved in late May 2012 for the F-Canyon Storage Pad. The F-Canyon Storage Pad consists of the following: a Non-Segregated Ore Pad, a Segregated Ore Stockpile Pad, and Stormwater Collection Sump. The Non-Segregated Ore Pad incorporated a low-permeability geosynthetic clay layer (GCL). The Segregated Ore Stockpile Pad and Stormwater Collection Sump incorporated synthetic liners and secondary containment for pipelines that will convey stormwater that comes into contact with Segregated and Non-Segregated ore. As defined by the Permittee, Segregated Ore is underground ore, either 'oxide' or 'refractory', that contains elemental mercury; Non-Segregated Ore is all other ore from the underground operation. See the subheadings ***Segregated Ore Stockpile Pad*** and ***Non-Segregated Ore Stockpile Pad*** for more details.

Segregated Ore Stockpile Pad: Segregated Ore is transported directly from the underground mine to the Segregated Ore Stockpile Pad where it is plug-dumped to a maximum height of 12 feet. Metal is then removed with a track hoe equipped with a grappling hook. Non-Segregated Ore is transported from underground and processed through the Metal Removal Plant (MRP) located on the Upper Non-Segregated Ore Stockpile Pad then stacked on the Lower Non-Segregated Ore Stockpile Pad to a maximum height of 30 feet using a radial stacker. All stockpile pads are located within the overall footprint of the F-Canyon Ore Storage Pad.

The Segregated Ore Stockpile Pad was constructed in two phases, the east ('existing,' constructed in 2010) and west ('expansion,' constructed in 2012) phases, measuring approximately 16,500 square feet (ft^2) and 15,600 ft^2 respectively. When loaded to the design 12-foot height with 6-foot setbacks, the east phase will accommodate approximately 6,500 tons of ore and the west phase will accommodate approximately 3,900 tons. However, a design modification approved in September 2012 removed an internal north-south berm that would have separated the east and west phases from each other. Consequently, the two phases are consolidated into a single stockpile pad. The entire pad area is constructed with a 5-foot high perimeter berm.

The Segregated Ore Stockpile Pad base and berms are covered with a single layer of 80-mil high-density polyethylene (HDPE) placed on a minimum 12-inch thick subgrade compacted to 90% maximum dry density (American Society for Testing and Materials [ASTM] Method D1557) in the east phase and 95% maximum dry density (ASTM Method D1557) in the west phase. Common fill, compacted to 90% maximum dry density (ASTM Method D1557) in the east phase and 95% maximum dry density (ASTM Method D1557) in the west phase, was placed on the subgrade in maximum 8-inch compacted lifts as needed to attain the design grade. A 6-inch thick lift of liner bedding material, compacted to 95% maximum dry density (ASTM Method D1557), underlies the HDPE in areas where the subgrade or common fill contains excess amounts of gravel. The HDPE liner is covered with a minimum 36-inch-thick layer of protective overliner material. The protective overliner material consists of waste rock or borrow gravel material,

100% passing the 2-inch sieve; the texture and color also serve as a visual warning to minimize the potential for HDPE liner damage during ore off-loading activities.

Stormwater reporting to the Segregated Ore Stockpile Pad will pass through the overliner layer and flow by gravity along the HDPE pad liner surface to a single outlet pipeline located at the northeast corner of the west phase, near the center of the north (downgradient) end of the pad. The outlet pipeline is constructed with a prefabricated combination 10-inch diameter HDPE secondary pipeline and 6-inch diameter carrier pipeline attached to the HDPE pad liner with a factory-welded and clamped pipe boot. The upgradient annular opening between the primary and secondary pipelines is sealed. The 6-inch diameter carrier pipeline is reduced to a 4-inch diameter HDPE primary pipeline immediately downgradient of the pad liner boot. The pipe-in-pipe system will convey solution downgradient approximately 300 feet west to the Stormwater Collection Sump located at the southwest corner of the Lower Non-Segregated Ore Stockpile Pad. The secondary containment pipeline daylights at the sump and is identified as 'LD-SEG.' Minimum weekly monitoring of this leak detection port is required in the Permit.

An EDC approved in May 2013 (after construction) documented the decommissioning, partial removal, and abandonment of a second pipe-in-pipe outlet pipeline that was originally constructed at the northwest corner of the east phase of the Segregated Ore Stockpile Pad. The record of construction report indicates that the single remaining outlet pipeline will adequately drain the entire Segregated Ore Stockpile Pad.

Non-Segregated Ore Stockpile Pad: The Non-Segregated Ore Stockpile Pad is divided into an 'Upper', east side, and a 'Lower', west side, ore storage area separated by an approximately 15-foot embankment drop from the Upper to the Lower pad. The embankment is covered with a layer of double-twisted wire mesh to enhance stabilization. The Upper Non-Segregated Ore Stockpile Pad storage area, which contains the MRP, a stockpile area, and a radial stacker, measures approximately 141,000 ft^2 and will accommodate about 56,000 tons of ore when loaded to the maximum 12-foot height with a 6-foot setback. The Lower Non-Segregated Ore Stockpile Pad storage area, designed to contain ore that has been processed through the MRP and placed with the radial stacker, measures approximately 146,000 ft^2 and will accommodate about 170,000 tons of ore when stacked to the maximum 30-foot height with 15-foot setbacks. The entire pad area is constructed with a 7-foot high perimeter berm.

The Upper and Lower Non-Segregated Ore Stockpile Pad base is covered with GCL placed on a minimum 12-inch thick subgrade compacted to 95% maximum dry density (ASTM Method D1557). The GCL is considered a low-permeability layer rather than a liner, because it has not been demonstrated to meet the specifications for a liner at NAC 445A.438. An EDC approved in May 2013 (after construction) allowed an exclusion zone with no GCL in the vicinity of the MRP

and radial stacker, provided that any ore spillage in this area is removed at the end of each 12-hour shift. The GCL is covered with a minimum 36-inch-thick layer of protective overliner material comprised of 100% waste rock or borrow gravel passing the 2-inch sieve. The cover material texture and color also serve as visual warning to minimize the potential for GCL damage during ore off-loading activities.

The base of the Upper and Lower Non-Segregated Ore Stockpile Pad was graded to a central low point along the north-south centerline of each portion. The Upper and Lower portions were also graded to a similar east-west swale located between the Segregated Ore Stockpile Pad and the adjacent extension of the Upper Non-Segregated Ore Stockpile Pad on the south and the Non-Segregated Ore Stockpile Pad on the north. A single, perforated, 8-inch diameter, smooth interior, corrugated polyethylene pipeline (CPEP) was placed at the base of the overliner material, above the GCL, within each north-south swale to facilitate collection and conveyance of stormwater. The north-south CPEP for the Upper pad is tied into a series of three CPEPs similarly located above the GCL within the east-west swale. The latter three CPEPs and the CPEP from the Lower pad (four CPEPs total) convey stormwater to the downgradient Stormwater Collection Sump.

A stormwater diversion constructed along the east side, upgradient edge of the F-Canyon Ore Storage Pad is designed to divert and convey the 100-year, 24-hour storm event flow around the pad and into natural drainages. The F-Canyon Stormwater Collection Sump will collect and convey stormwater and other solution discharge from within the footprint of the F-Canyon Ore Storage Pad. The sump, measuring approximately 80 feet by 100 feet from crest to crest, is lined with a single layer of 80-mil HDPE and can accommodate 122% of the 100-year, 24-hour storm event volume (130,000 gallons) with a 2-foot freeboard remaining.

To eliminate the time limit for storage of solution, the Stormwater Collection Sump, which is constructed as a single-lined pond, is equipped with a 120-mil HDPE-lined, subgrade, concrete vault located at the low end. The vault drains by gravity into a prefabricated pipeline, consisting of a 10-inch diameter HDPE secondary pipeline and 6-inch diameter carrier pipeline, welded to the HDPE vault liner and traced with copper wire for leak detection. Outside the vault, the 6-inch diameter pipeline stub is connected with a reducer to a 4-inch diameter HDPE primary pipeline within the 10-inch diameter HDPE secondary pipeline. The pipe-in-pipe system conveys solution from the Stormwater Collection Sump to a wye tie-in with the existing above ground, single-wall, 4-inch diameter HDPE Contact Water Pipeline that conveys water to the Water Storage Reservoir. The 10-inch diameter secondary containment pipeline daylights into a small, 80-mil HDPE-lined leakage collection sump (leak detection port LD-SEG3), located just upgradient of the wye connection that allows for monitoring, quantification, and removal of any primary pipeline leakage. A check-valve prevents backflow from the Contact Water Pipeline.

Ore from the underground operations is processed either at the Pipeline Mill #2 or at an authorized off-site facility. The F-Canyon Pit will remain a dry pit and will be backfilled with approximately 2 million tons of development waste rock from the underground workings. Approximately 11 million tons of predominately Cortez Hills limestone waste rock from the underground workings and the Cortez Hills Pit will be used as aggregate to produce cemented backfill for the mined underground workings.

Range-Front Declines: The twin Range-Front Declines expansion above 3,800 feet AMSL was approved by the Division as a minor modification in November 2015 and further extended to above the 2,500 feet AMSL elevation as a major modification in the 2018 Renewal. The Range-Front Decline facility includes mining and construction of the declines, placement of approximately 500,000 tons of additional waste rock on the Canyon Waste Rock Facility, construction of ore and waste rock stockpile pads, an event pond, a temporary contact water tank, a temporary shotcrete plant, fuel and lube facilities, freshwater and potable-water tanks, a portal underground washbay, a contact water system for dewatering the underground workings, and a pipeline to convey contact water from the portal underground washbay to the existing F-Canyon Contact Water Pipeline. The 2015 minor modification also includes construction of permanent underground support facilities at a separate utility corridor site located near the west rim of the Cortez Hills open pit. Fuel, lubricants, shotcrete ingredients, and oxide waste rock (for cemented rock backfill) are all transferred from the surface utility corridor site to the underground workings via boreholes.

Aside from the mining necessary to construct the declines themselves, the Range-Front Declines expansion does not authorize additional mining of ore and waste rock beyond what was previously approved. The Range-Front Declines will extend approximately 10,900 feet southeast from the portal, located at the range-front at approximately 5,000 feet AMSL (just east of the ultimate toe of the Canyon Waste Rock Facility), to intersect the orebody at approximately 3,800 feet AMSL. Mining shall not extend below 2,500 feet AMSL until a future Permit modification is approved, including, but not limited to, additional rock characterization and an updated waste rock management plan (WRMP).

The waste rock that will be mined driving the Range-Front Declines is two-thirds limestone from the Roberts Mountains Formation and one-third dolomite from the Hanson Creek Formation. Geochemical characterization analyses indicate that this waste rock is neutralizing material with very low total sulfur content and a minimum ratio of acid neutralizing potential to acid generating potential (ANP/AGP) of 6.4. Three humidity cell tests (HCTs) were performed on material collected near the Range-Front Declines. All HCTs were neutralizing, and the leachate characteristics were similar to that of previously approved waste rock from the Cortez Hills open pit.

As described below in the ***Dewatering and Water Management*** section, dewatering water collected in sumps within the underground mines is considered contact water because it has potentially come into contact with drilling and mining materials and petroleum products used underground. Contact water collected in the underground workings accessed by the Range-Front Declines is pumped to the portal underground washbay Sump, located a short distance inside the Range-Front Declines portal. Water from the portal underground washbay Sump is pumped via pipeline to a tie-in with the existing F-Canyon Contact Water Pipeline.

The Portal Underground Washbay Sump is constructed with concrete walls and flexible plastic waterstops in all construction joints in the primary containment structure (Record of Construction approved April 2017). A concrete sump houses a pump that conveys the Contact Water via 6-inch diameter HDPE pipeline to the surface. In addition to water from underground sumps, the Portal Underground Washbay Sump receives Contact Water via pipeline from the Range-Front Declines Event Pond and the Range-Front Declines Temporary Shotcrete Sump, both of which are located on the surface outside the portal. The temporary fuel and lube facility was approved by the Division November 2016, and included a 27-cubic foot sump.

Ore and waste rock are transported out of the Range-Front Declines and deposited on three engineered stockpile pads located on the surface outside of the portal. Ore is removed from the stockpile pads and loaded onto the adjacent existing cross-valley ore conveyor for transport to the Pipeline Project Mill (WPCP NEV0093109). Waste rock is trucked to the Canyon Waste Rock Facility. The stockpile pads will be constructed in three phases; hence, the three stockpiles are designated the Phase 2A, Phase 2B, and Phase 2C Stockpile Pads. A radial stacker feeds material from the portal to the Phase 2A Pad. An ore-handling building and apron-loading conveyor are also constructed on the Phase 2A Pad to transfer ore from the stockpile to the cross-valley conveyor. The Phase 2B and Phase 2C Pads are designed as surplus stockpiles for the Phase 2A Pad.

From bottom up, all stockpile pads are constructed with a subgrade base scarified to 8- to 12-inch depth and compacted to 90% maximum dry density (ASTM Method D1557), a 12-inch thick (compacted) liner bedding layer compacted to 92% maximum dry density (ASTM Method D1557), an 80-mil smooth HDPE liner, a 2-foot thick overliner layer with a minimum hydraulic conductivity of 1×10^{-1} centimeters per second (cm/sec), and a 5-foot thick wheel-compacted common fill layer. Each stockpile pad includes 6-inch diameter CPEPs placed on the 80-mil HDPE liner on 100-foot centers within the overliner layer. The 6-inch diameter CPEPs join with a 12-inch diameter CPEP header along the downgradient side of each pad. The Phase 2A and 2C Pads drain directly into the Range-Front Declines Event Pond, but drainage from the Phase 2B Pad is collected in a 36-inch diameter perforated HDPE vertical riser pipe booted through the pad liner in the midpoint of

the pad's northeast (downgradient) side. Below the liner, the vertical riser transitions to a buried 24-inch diameter solid HDPE primary pipe within a 30-inch diameter HDPE secondary pipe, which conveys drainage solution from the Phase 2B Pad under the Phase 2C Pad to the Event Pond. The Phase 2B Pad secondary drain pipe is routinely monitored for leakage as monitoring point LD-2BP in the Permit. A 200-foot long section of the buried Phase 2B Pad drain pipe will be installed under a haul road during Phase 1 construction, with both ends capped and labeled until it is connected to the pad and pond during Phase 2B construction.

The Range-Front Declines Event Pond is located adjacent to the Phase 2A and 2C Stockpile Pads to receive stormwater drainage (contact water) from all three stockpile pads. The pond capacity is 1.7 million gallons at the minimum 2-foot freeboard level stipulated in the Permit, and 2.3 million gallons at the pond crest. From bottom to top, the pond liner system consists of a subgrade base scarified to 8- to 12-inch depth and compacted to 90% maximum dry density (ASTM Method D1557), a 12-inch thick (compacted) liner bedding layer compacted to 92% maximum dry density (ASTM Method D1557), an 80-mil smooth HDPE secondary liner, a geonet leak detection layer, and an 80-mil textured HDPE primary liner with textured side up. The leak detection layer drains to a gravel-filled leak detection sump constructed between the primary and secondary liners in the north corner of the pond bottom. The sump is evacuated via an 8-inch diameter HDPE riser pipe that runs up the pond slope and daylights at the pond crest (Permit monitoring point RF-EP). The Event Pond receives contact water drainage from the Phase 2A and 2C Stockpile Pads via two HDPE-lined inflow channels, and from the Phase 2B Stockpile Pad via a buried dual-walled drainage pipe that discharges over the pond crest. Event Pond solution (contact water) is pumped to the Portal Underground Washbay Sump, then pumped to the Water Storage Reservoir (WSR). Event Pond solution is routinely sampled and analyzed for water quality (Permit monitoring point RF-EPS).

The temporary contact water tank pipeline that connects to the portal underground washbay is not buried but has double containment. The pipelines that connect the event pond and the temporary shotcrete sump to the portal underground washbay sump are buried dual-walled pipelines (4-inch diameter HDPE primary pipe within 8-inch diameter HDPE secondary pipe) with leak detection riser ports that are routinely monitored for leakage. The pipes are buried a minimum of 3 feet below ground surface within neutralizing pipe bedding fill compacted in maximum 12-inch lifts to 90% maximum dry density (ASTM Method D1557). Pipeline leak detection riser ports for the event pond pipeline are designated in the Permit as LD-EPP1, LD-EPP2, and LD-EPP3. The leak detection ports for the temporary shotcrete pump pipeline are designated as LD-SCSP1 and LD-SCSP2. The portal underground washbay pipeline to Cross-Valley Contact Water Pipeline (Record of Construction approved by the Division February 2017) is a buried dual walled pipeline (6-inch diameter HDPE primary pipe within 10-inch diameter HDPE

secondary pipeline) with leak detection riser ports that allow for routine monitoring designated as LD-UWBP1, LD-UWBP2, LD-UWBP3, and LD-UWBP4.

An EDC approved by the Division April 2017, allowed the Temporary Fuel and Lube Sump to be connected to the Temporary Shotcrete Sump. This allows water from the Fuel and Lube sump to enter the Contact Water System at Cortez Hills.

Mill Ore Processing: Mill-grade ore will be processed at the Pipeline Mill #2, permitted as part of the separate Pipeline Project WPCP NEV0093109, or at an authorized off-site facility. The facility is permitted to process up to 5,475,000 tons of ore per year and uses both carbon-in-leach (CIL) and carbon-in-column (CIC) circuits to recover gold (see WPCP NEV0093109 and fact sheet for details).

Mill ore is transported from the Project to the Pipeline Mill #2 either via haul truck (uncrushed) or via the Cortez Hills primary gyratory crusher (and associated stockpile) and an overland conveyor system. The Cross-Valley Ore Conveyor System design calls for a 42-inch wide belt, moving at approximately 550 feet per minute to transport approximately 1,500 tons per hour over the approximately 12-mile route to the Pipeline Mill #2. The conveyor is constructed on supports, at an average height of 4 feet above ground, and designed with wildlife and cattle crossings where bridges cross over public and private roads. Fencing along the entire conveyor alignment prevents access by livestock. The conveyor design includes a partial cover on the south side – the predominant wind direction - to minimize wind-blown dust generation. Since the conveyed ore does not have the potential to generate acid or liberate contaminants, dedicated spillage containment is not required but spillage would be picked up with a loader and placed in the Pipeline Mill #2 ore stockpile as soon as practical after detection.

An EDC was approved by the Division in December 2014 for a new oxide ore stockpile on the North Waste Rock Facility (North WRF). From the stockpile, the ore may be transported to the leach pad or to the Pipeline Mill #2 (WPCP NEV0093109). The ore can be transported either via truck or be first crushed in the Cortez Hills gyratory crusher and then transported via the Cross-Valley Ore Conveyor System. Characterization data demonstrates that the oxide ore does not have the potential to degrade waters of the State; consequently, the stockpile pad does not include engineered containment. The toe of the ore stockpile is set back at least 200 feet from the crest of the North Waste Rock Facility for stability purposes.

Leach Ore Processing: Leach-grade ore from the Cortez Hills Pit is processed at the Grass Valley Heap Leach Facility located approximately ½ mile south of the Cortez Hills Pit. (The facility design is similar to that used for the Area 30 South Area Heap Leach Facility located at the Pipeline Project (WPCP NEV0093109)). Ore is hauled from the pit by haul truck and placed directly as uncrushed ROM material, with lime added, on the Grass Valley Heap Leach Pad, a synthetically–

lined facility. Gold is recovered from the leach solution in the Grass Valley CIC Process Plant, located on the south edge of the heap leach pad and adjacent to the Process Solution Pond.

Grass Valley (Area 34) Heap Leach Pad: The Grass Valley (Area 34) Heap Leach Pad was constructed in three approximately equal-area phases to accommodate a total of approximately 79.3 million tons of ore placed to an anticipated average height of 150 feet. A significantly greater tonnage of ore can be accommodated if it is placed to the approved maximum design height of 300 feet for Phases I, II, and III. The ultimate pad footprint, including all three phases, covers approximately 12.3 million ft^2 (approximately 282 acres). The 2007 original Permit application included a detailed design for only the Phase I construction, which was completed in late 2010. Construction of the other phases required later submittal of detailed engineering designs and modification of the Permit. A minor modification for the Phase II expansion was approved by the Division in October 2012, and another minor modification for the Phase III expansion was approved by the Division in October 2014. Phase II construction was completed in mid-2013, and Phase III construction was completed in September 2015.

The Phase I pad has a footprint of approximately 3.66 million ft^2 (84 acres) and accommodates approximately 18.04 million tons of leach ore, if loaded in the design 20-foot lifts to the anticipated height of 150 feet. The Phase II pad adjoins the eastern side of the Phase I pad toward which it is graded. The Phase II pad footprint measures approximately 2.91 million ft^2 (approximately 67 acres) and increases the combined Phase I/Phase II leach ore capacity to approximately 38.43 million tons if both are loaded to a height of 150 feet. The Phase III pad adjoins both the Phase I and Phase II pads on their north sides, and is graded to drain to a pipeline collection channel along its western margin, which is a northward extension of the Phase I Main Header Pipeline Channel. The Phase III pad footprint measures approximately 3 million ft^2 (approximately 70 acres). Approximately 2.75 million ft^2 of available space remain on the north side of Phase III for additional future expansion of the leach pad. Phase IV was included as part of the 2018 major modification, and since no designs were provided with the submittal, a Schedule of Compliance item was included in the Permit.

The Phase II and Phase III designs are similar to the Phase I design with minor differences noted below. By design, ore can be loaded on both Phase I and Phase II in 20- to 30-foot lifts (30-foot lifts in Phase III) to a maximum height of 300 feet above the synthetic liner, which would result in a total Phase I/II ore capacity of approximately 79.30 million tons. Regardless of the ultimate heap height, the pad construction will allow a 2.5H:1V final reclamation slope to be achieved at closure without pushing any leach material off containment. During operation this mandates a minimum 30-foot setback of ore from the inner toe of the leach pad perimeter berm, and an approximate 36-foot setback on each successive lift from the outer crest of the previous lift. The heap leach pad design was evaluated for

static and seismic (pseudostatic) stability for anticipated scenarios. The minimum factors of safety results of all models meet or exceed Nevada Division of Environmental Protection (Division) minimum requirements.

The entire Grass Valley Heap Leach Facility is protected from upgradient stormwater run-off by the East and West stormwater diversion channels, which are designed to withstand the peak flow from the 100-year/24-hour storm event (2.99 inches). The riprap-armored trapezoidal channels are designed with a 10- to 12-foot wide base, minimum 3- to 4-foot depth, and a gradient between 0.5% and 2.7% to limit flow velocity.

The Phase I, Phase II, and Phase III pads are constructed with a composite liner system comprised of a single layer of 80-mil double-textured HDPE geomembrane placed on a 12-inch thick Low Hydraulic Conductivity Soil Layer (LHCSL) compacted to at least 95% of maximum dry density (ASTM Method D1557) with a measured permeability no greater than 1×10^{-6} cm/sec (ASTM Method D5084). The subgrade preparation under the LHCSL includes stripping and grubbing to a minimum depth of 12 inches, followed by scarification and moisture conditioning of an 8-inch depth of native soils compacted to at least 90% of maximum dry density (ASTM Method D1557). As needed to achieve the design grade, fill materials are placed on the subgrade in 8- or 12-inch loose lifts and compacted to at least 95% of maximum dry density (ASTM Method D1557).

The leach pad design incorporates a solution collection pipeline system capable of conveying a maximum 15,000 gallons per minute (gpm) flow, which is substantially in excess of the 12,600 gpm flow resulting from the design 0.003 – 0.005 gpm/ft^2 solution application rate. The Phase I and Phase II pads are divided internally into six bermed cells each to provide a further level of flow control within each pad. The Phase III pad is divided into two bermed cells. In all phases, the cell divider berms run approximately east west. The Phase II cells are eastern continuations of the Phase I cells. Cell 1 is located along the northern edge of Phases I and II, and Cell 6 is located along the southern edge of Phases I and II. In Phase III, Cell 7 is located along the south side of Phase III (adjacent to Phase I/II Cell 1), and Cell 8 is located along the north side of Phase III.

The solution collection pipeline system is comprised of a primary network of perforated CPEP solution collection pipes (alternating 6-inch and 8-inch diameter on Phase I and the lower half of Phase III; only 6-inch diameter on Phase II and the upper half of Phase III), placed on 30-foot centers over the HDPE pad liner. The primary collection network reports to 24-inch diameter, perforated CPEP, intermediate solution collection pipes – two or three per cell in Phases I and II; only one per cell in Phase III. In Phases II and III, the intermediate solution collection CPEPs are placed diagonally transverse to the approximately westerly flow direction of the primary collectors. The intermediate solution collection pipes are covered by a minimum 16-inch-thick layer of drain rock and are located within

22.5-foot wide zones where the HDPE liner is covered with a 24-inch-thick layer of drain rock (instead of normal overliner material, described below) to enhance solution collection and conveyance. In Phases I and II, the intermediate solution collection pipes report to solid CPEP Collection Header pipes, which run westerly, along the upgradient toe of each cell divider berm. In Phase III, the one intermediate solution collection pipe in each cell runs westerly down the middle of the cell all the way to the solution collection channel along the western edge of the pad.

The Phase III intermediate solution collection pipes report to dual 24-inch diameter perforated CPEP solution collection header pipes that run southerly within the trapezoidal Phase III solution collection channel until they transition into the single 32-inch diameter, non-perforated, carbon steel, Phase I Main Collection Header Pipe at the Cell 7/Cell 1 solution channel transition. The Phase III solution collection header pipes are buried under overliner material within the solution collection channel, unlike the Phase I Main Collection Header Pipe, which is exposed within the 'v'-shaped Phase I Main Header Pipeline Channel. Just upstream (north) of the Cell 1/Cell 7 transition, an HDPE manifold joins the two Phase III 24-inch diameter CPEP headers into one 32-inch diameter, standard dimension ratio (SDR) 21, non-perforated HDPE Cell Outlet Pipe. The Cell Outlet Pipe is booted through an 80-mil HDPE-lined Phase III channel dam and connects to the Phase I Main Collection Header Pipe. The lined Phase III channel dam is constructed entirely on top of the 80-mil, double-textured, HDPE channel liner. At the south end of the Phase III solution collection channel, just on the upstream side of the channel dam, a gravel-filled, geotextile encased, leakage collection and return system (LCRS) sump (GV-PIIIC) is constructed beneath the channel liner and LHCSL layer. The LCRS also includes a 4-inch diameter CPEP pipe, encased in gravel and geotextile, which runs the entire length of the Phase III solution collection channel under the liner and LHCSL, and reports to the channel LCRS sump. The LCRS sump, but not the rest of the LCRS, is underlain by an 80-mil, double-textured, HDPE liner. LCRS monitoring and evacuation is achieved via an LCRS port (GV-PIIIC) constructed of 8-inch diameter HDPE riser pipe, which boots through the 80-mil HDPE liner and daylights at the western crest of the Phase III solution collection channel.

On the Phase I, II, and III pads, the entire HDPE liner and the primary underdrain solution collection pipeline system are covered with a minimum 24-inch thick layer of coarse (1½-inch minus for Phases I and II; 2-inch minus for Phase III) overliner material within the pad area to protect the system and to promote drainage to the pipes. However, to provide an improved flow to the downgradient solution collection system on the Phase I and II pads, drain rock is used instead over and adjacent to the intermediate solution collection pipelines (see above), and a 40-inch thick layer of drain rock is placed along a 150-foot wide transition zone upgradient of the toe of the Phase I pad. Drain rock (2-inch minus) is graded to contain a lower percentage of fine size fractions than the normal overliner material, although both

materials have size-gradation specifications designed to promote rapid lateral drainage. Similarly, on the Phase III pad, the overliner layer is increased to 40-inches thick in a 150-foot wide zone along the western margin of the pad, but normal overliner material with less than 5% passing the Nomber 200 sieve is used in this location and elsewhere, instead of drain rock.

During initial mining of the Phase I pad ore, the ore was noted to exhibit lower permeability and lower strength than expected, due to alluvial ore and bedrock hydrothermal alteration. This raised concerns regarding drainage and stability on the pad. A new stability analysis was performed in 2009, using new data applicable to the altered ore, and changes to the mining and ore loading protocols were implemented; these include, but are not limited to, blending of ore types to increase stability, and constructing a perimeter rockfill buttress using only competent ore material within the Phase I pad footprint on its west, southwest, and south sides. To monitor the pad stability, vibrating wire piezometers were installed in the Phase I, II, and III of the heap leach pad.

An EDC approved by the Division in April 2017 authorized the removal of the piezometer monitoring requirements. The Permittee demonstrated that the piezometers within the Grass Valley Heap Leach Facility were not necessary for the stability of the heap leach pad. The operational data demonstrated adequate permeability and excess head had not been an issue since the early commissioning of the heap leach pad.

***Leach Solution Collection and Conveyance*:** The Phase I heap leach pad solid CPEP Collection Header pipes connect to a solid 32-inch diameter, SDR 21, HDPE Cell Outlet Pipe that conveys solution to the solid 32-inch diameter, SDR 32.5, HDPE Phase I Main Collection Header Pipe. The Phase I Main Collection Header Pipe is located in the vee-shaped, 6-foot deep Main Header Pipeline Channel lined with a single layer of 80-mil HDPE placed over prepared subgrade. Where needed, a minimum 6-inch thick layer of liner bedding material, compacted to 95% maximum dry density (ASTM Method D1557), is also placed beneath the channel synthetic liner for additional liner protection. The Main Header Pipeline drains to the 32-inch diameter, SDR 32.5, Transfer Pipeline located in the Transfer Pipeline Channel. The Transfer Pipeline Channel is a trapezoidal-shaped channel with an 8-foot wide base and minimum 3.5-foot depth, constructed to the same liner specification as the Main Header Pipeline Channel, which leads to the launder and flume that discharges to the Pregnant Solution Sump. A tee and valve combination, located just upgradient of the launder and flume assembly, ties the Transfer Pipeline into the 32-inch diameter, SDR 32.5, By-Pass Pipeline, which is located in the 80-mil HDPE-lined By-Pass Pipeline Channel. The By-Pass Pipeline and associated channel provide flexibility to discharge pad draindown solution directly to the Process Solution Pond in the event the Pregnant Solution Sump or related systems require maintenance. With the approval of the Division in July 2016, the By-Pass

Pipeline was removed while not in use due to the wear on the liner from pipe expansion. A blind flange remains in place when the By-Pass Pipeline is not in use.

The Pregnant Solution Sump consists of a 36-foot diameter, 14.5-foot tall steel tank equipped with three vertical turbine pumps. Pregnant leach solution discharged to the sump is pumped directly from the sump to the process plant through a 24-inch diameter steel pipeline.

The Pregnant Solution Sump is located on a bench, the Pregnant Sump Shelf, constructed on the upper interior slope of the Process Solution Pond. The Pregnant Sump Shelf is lined with an 80-mil double-textured HDPE primary liner and a 60-mil smooth HDPE secondary liner with a geonet layer between the liners that serves as an LCRS. The shelf LCRS is hydraulically isolated from the Process Solution Pond LCRS and reports to a 4-foot by 4-foot by 2-foot deep solution collection sump filled with gravel encapsulated in geotextile. The LCRS sump can be evacuated through a 12-inch diameter HDPE riser pipe that exits the primary liner at the pond crest.

The Pregnant Solution Sump foundation consists of a 2-foot thick, lean concrete platform, poured in place over an 80-mil textured HDPE wear sheet and an underlying geotextile layer that rests directly on the Pregnant Sump Shelf primary liner. Solution flows in excess of the sump capacity or during upset conditions will overflow the sump via a 10-inch diameter discharge port and be retained in the Process Solution Pond.

The Process Solution Pond is designed to provide storage volume during upset conditions. The pond measures approximately 500 feet by 380 feet at the crest and is approximately 22.5 feet deep. The pond has a design capacity of 18.56 million gallons, which consists of the calculated 24-hour power loss draindown volume from the heap leach pad at the design return flow rate of 12,600 gpm and the calculated volume reporting to the pond from the design 100-year/24-hour storm event. A 2-foot freeboard brings the pond maximum storage volume at the crest to 21.32 million gallons.

The Process Solution Pond is constructed with a composite liner system and an LCRS system. The composite liner system consists of a 60-mil smooth HDPE secondary liner and an 80-mil smooth HDPE primary liner with a layer of geonet placed between the liners to serve as an LCRS. The secondary liner is placed on a 6-inch thick layer of bedding material to protect the geomembrane from damage by gravel in the underlying native soils. The liner system is anchored in a key trench along the pond crest. The LCRS reports to a 15 ft^2 by 2-foot deep solution collection sump filled with gravel encapsulated in geotextile. Collected solution can be evacuated through a 12-inch diameter HDPE riser pipe that exits the primary liner at the pond crest.

The Process Solution Pond has a 10-foot wide overflow spillway connecting it to the adjacent Emergency/Storm Event Pond. The spillway is lined with a single layer of 80-mil smooth HDPE placed on a 6-inch thick layer of liner bedding. The Emergency/Storm Event Pond measures approximately 500 feet by 380 feet at the crest and is approximately 22.3 feet deep. The pond has a design capacity of 18.42 million gallons, which is the calculated run-off volume from the 100-year/24-hour storm event falling on 8.4 million ft^2 pad surface (twice the Phase I design footprint area) plus the run-off from exposed liner, the pond surface, and all solution channels, with 2 feet of pond freeboard remaining. The Emergency/Storm Event Pond is double-lined, leak detected, and constructed to the same specification as the Process Solution Pond.

Leach Solution Processing: Pregnant solution is conveyed to the Grass Valley CIC Process Plant from the Pregnant Solution Sump via a 24-inch diameter steel conveyance pipeline or from the Process Solution Pond reclaim sump, if solution is present, via a 10-inch diameter steel conveyance pipeline. All pipeline runs are located within the 80-mil HDPE-lined pipeline channel for secondary containment.

The majority of the process facility equipment is contained within a pre-engineered steel process building that measures 92 feet wide by 154 feet long by 55 feet high. The building is constructed on a steel-reinforced concrete floor slab with a minimum 8-inch tall reinforced concrete containment stemwall. All floor and stemwall construction joints are constructed with embedded membrane waterstops and the concrete floor surfaces are coated with an epoxy-type sealant.

The plant floor slab is sloped to a grated 18-inch wide floor channel located centrally along the length of the building. The floor channel reports to a 24-foot by 6-foot by 5-foot deep solution sump, screened to prevent carbon loss, and evacuated to the Process Solution Pond by an automatic sump pump. The floor channel and sump have a combined capacity of approximately 120,000 gallons, sufficient to contain one entire column of carbon plus 110% of the volume contained in one five-column train.

The process building is also equipped with an 80-mil HDPE-lined spillway that can convey up to the maximum 12,600 gpm solution flow by gravity from the process building floor (in the event of an upset) to the lined pipeline channel and into the Process Solution Pond. The spillway, which measures approximately 8 feet wide at the base with 12-inch high side slopes, can convey the maximum process flow at a flow depth of 4 inches. The spillway liner is tied to the building containment slab and welded to the channel HDPE liner.

The process circuit is designed for a maximum process flow rate of 12,600 gpm, which is the design maximum solution return flow rate from the heap leach pad, through three trains of carbon adsorption columns. Each train can operate independently of the other two trains and is comprised of five up-flow, fluidized,

carbon adsorption columns, each measuring 14 feet in diameter by 15 feet tall. A 6-foot by 12-foot inclined vibratory safety screen recovers overflow carbon at the end of each train. Each individual five-column train has a design flow rate of 4,200 gpm.

Barren solution reports to the Barren Solution Pump Box, a steel tank that measures 14 feet in diameter by 15 feet high. The tank is equipped with two vertical turbine pumps that pump barren solution back to the heap leach pad through a 30-inch diameter steel pipeline located in the 80-mil HDPE-lined pipeline channel. On the heap leach pad, the barren pipeline is aligned in a north-south direction along the western toe of the pad.

After loading with gold, the carbon is transported by a special 8-ton capacity tanker truck, at a rate of up to 12 tons per day, to the Pipeline Mill #2 where the gold is recovered and the carbon is regenerated for further use. Carbon fines are transferred to a carbon tower for recovery. The tanker truck is loaded within the process building containment with access on a pull-through pad constructed with roll-up doors and containment ramps on each end of the building.

Reagent load-out and storage is located on the north side of the process building. The load out and storage areas are constructed with more than the required 110% solution containment and are hydraulically segregated from the process building containment. The load-out pad is constructed of steel-reinforced concrete and measures approximately 103.5 feet long by 20 feet wide. The pad is of a pull-through design and is equipped with a containment curb, containment ramps at each end, and pad gradient to direct any fugitive solution to scupper drains that hydraulically link the pad to the respective reagent tank containment area. Reagent storage is comprised of one antiscalant tank measuring 12.5 feet in diameter by 14 feet 10 inches high; one mercury suppressant tank measuring 10 feet in diameter by 11.5 feet high; and two sodium cyanide solution tanks each measuring 13 feet in diameter by 20 feet high. Each reagent tank has individual compartmental containment equipped with a dedicated evacuation sump with a pump that reports to the Barren Solution Pump Box inside the process building.

Waste Rock Management: Waste rock can be placed in one of four engineered waste rock disposal facilities (WRFs). The WRFs are identified as the Canyon Waste Rock Facility (Canyon WRF), the North Waste Rock Facility (North WRF), the South Waste Rock Facility (South WRF), and the Cortez Waste Rock Facility (Cortez WRF). The respective facility design capacities and footprints are: 800 million tons on 1,504 acres; 185 million tons on 400 acres; 65 million tons on 169 acres; and 163 million tons on 342 acres.

The waste rock facilities are constructed by end-dumping from haul trucks to form individual bench lifts up to 200 feet thick with angle-of-repose slopes. All facilities are designed in a terraced configuration to facilitate regrading of individual benches

to an overall 2.5H:1V final reclaimed slope. A 15-foot relief bench will remain at the crest of each lift elevation following reclamation to minimize the potential for stormwater ponding and surface erosion. All facilities and stormwater structures are designed to contain the 100-year, 24-hour storm event flows. Stability analysis of the post-reclamation configurations of the waste rock facilities indicated static factors-of-safety in excess of 1.9 and pseudostatic (seismic event) factors of safety in excess of 1.48. These calculated factors of safety are well above the Division-accepted minimum factors of 1.3 for static and 1.05 for pseudostatic.

The Canyon WRF is the main facility for the Cortez Hills Pit and is located within Cortez Canyon and a portion of Pixie Canyon. The canyon location provides for a stable facility since the waste rock is constrained on three sides by native topography. The open toe of the facility is located on the floor of Crescent Valley and the slope angle is reduced by design to ensure stability. The canyon location reduces the footprint required for waste rock disposal, reduces the growth media required for reclamation, and reduces visual impact. The design avoids seeps and springs to prevent entry of water into the base of the facility. A diversion channel, constructed along the southwest side of the Canyon WRF and lined with 80-mil HDPE where it traverses waste rock fill, will intercept and direct upgradient stormwater run-on flows into Copper Canyon. In December 2016 the Division approved an EDC to deposit the waste rock from the Horse Canyon/Cortez Unified Exploration Project (HCCUEP) declines (WPCP NEV2016104) on the Canyon WRF.

The North WRF is located to the north of the Cortez Hills Pit. An EDC was approved in December 2014 to expand the previously approved North WRF and to place an oxide ore stockpile on its top surface. An engineered East Diversion Channel constructed along the east side of the North WRF intercepts and diverts upgradient stormwater run-on into an unnamed drainage north of the WRF. An engineered West Diversion Channel and culvert system constructed along the south side of the WRF diverts upgradient stormwater run-on to an unnamed drainage on the southwest and west sides of the WRF. The 24-inch diameter culvert directs the stormwater under the North WRF access ramp and the F-Canyon haul road. Riprapped stormwater stilling basins are constructed along the diversion ditches at grade breaks and at ditch and culvert terminations. Characterization data and a revised slope stability assessment submitted with the EDC indicate that the waste rock and oxide ore do not have the potential to degrade waters of the State or to compromise the stability of the final reclaimed North WRF.

The South WRF is located to the south and east of the Cortez Hills Pit. Unlike the canyon construction of the Canyon and North WRFs, the South WRF is constructed on a pediment surface. A diversion berm, constructed along the east side of the facility intercepts and directs upgradient stormwater run-on to existing drainages in Grass Valley.

The Cortez WRF is located to the west of the Cortez Pit. Similar to the South WRF, the Cortez WRF is constructed on a pediment surface.

Materials Characterization: The potential for Cortez Hills waste rock to generate acid and leach metals was evaluated by static testing on 10,250 drill samples. Rock types in the Cortez Hills deposit are comprised of marble, skarn, refractory rock, alluvium, siltstone conglomerate, limestone, and limestone conglomerate. The latter two rock types make up 89% of the Cortez Hills waste rock mass. Except for some refractory rock (less than 0.3% of the total waste rock volume) encountered at depths greater than 1,200 feet below surface in the Cortez Hills deposit, the deposit is entirely oxidized. Of 779 samples analyzed by acid-base accounting (ABA static) methods, only 13 generated an ANP/AGP ratio of less than 3. Most samples generated ratios of 200 to greater than 900. Subsequent humidity cell (kinetic) tests performed on these and other test samples resulted in generation of net alkaline leachate solutions. Based on these static and kinetic characterization tests, none of the rock types, including the refractory material, are considered to have the potential to generate acid because of abundant carbonate minerals relative to sulfide minerals.

Leaching tests conducted on waste rock samples resulted in leachate effluent with circum-neutral pH and no exceedances of Profile I reference values except for antimony and arsenic, which the Permittee has demonstrated will be attenuated to below the applicable reference values after meteoric water that may contain the elevated concentrations infiltrates through 3 to 10 feet of vadose zone alluvium or basin fill. Therefore, no impacts to groundwater are expected from waste rock, because the shallowest groundwater near the Cortez and Cortez Hills WRFs (i.e., Canyon WRF, North WRF, and South WRF) is approximately 30 feet below ground surface (bgs) at monitoring well MW-96, located in the Crescent Valley basin north of the toe of the Canyon WRF. Elsewhere, groundwater depths near the Cortez Hills WRFs range from approximately 60 feet bgs to greater than 1,300 feet bgs.

The characterization completed for the 2018 modification for the surface and underground expansions presented similar results to the initial characterization done at the site. An additional 613 ABA tests were completed for the Cortez Hills/Pediment Pit of which only 28 of the tests has an ANP/AGP ratio less than 3. For the underground expansion 229 ABA tests were completed of which 17 had an ANP/AGP ratio less than 3. The Cortez Pit tests consisted of 21 ABA tests which the waste rock had three times the neutralizing potential. The Permittee ran 51 kinetic tests and three generated an acidic leachate. Those three tests represented approximately 5% of the material to be removed from the underground.

Dewatering and Water Management

Development of the Cortez Hills Pit includes dewatering operations to relieve hydraulic pressure in the pit walls and produce stable pit wall conditions over the life of mining operations. Hydrologic and geotechnical studies indicate that groundwater is localized in the structural bedrock and that no substantial water-bearing zones occur in the alluvium; groundwater elevations in the open pit area range from 500 to 1,600 feet bgs; groundwater flow is structurally controlled by numerous north-south and east-west trending faults and fractures; and local bedrock exhibits low hydraulic conductivity, which generally limits sustainable pumping rates to approximately 20 to 50 gpm, except for three identified zones of approximately 200 to 500 gpm.

Numerical groundwater flow modeling estimates indicate that the dewatering rate would not exceed an annualized average of 8,200 gpm with the higher rate occurring at the end of mining (9,100 gpm). The Cortez Hills Pit is dewatered using a combination of perimeter wells, horizontal and vertical gravity drains, and in-pit wells and sumps. In addition to the effects of the perimeter well and in-pit dewatering, the underground workings are dewatered with supplemental collection sumps and gravity drain holes.

Dewatering water is consumed primarily as process make-up water at the Grass Valley Heap Leach Facility (approximately 1,500 gpm) and dust suppression activities (approximately 1,000 gpm) in accordance with valid water rights. Dewatering water in excess of consumptive requirements, that meets Permit criteria, can be conveyed to existing permitted Pipeline rapid infiltration basins (WPCP NEV0095111), used for irrigation at the Dean Ranch as permitted by the State Engineer, or stored in the Cortez Hills Fresh Water Reservoir as a supply of dust control or process make-up water. Water that does not meet Permit criteria can only be used in process facilities and is conveyed by a separate cross-valley pipeline for use in the Pipeline Mill #2 (WPCP NEV0093109). As part of the 2015 Permit renewal, the requirement that dust suppression water meet Profile I Permit criteria was relaxed somewhat to be consistent with Division WPCP boilerplate requirements. The new requirement states that if a dust suppressant exceeds both a water quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall first demonstrate no potential to degrade waters of the State.

For the purposes of dewatering water handling and management, the water removed is identified as either "contact water" or "infiltration water" (infiltration water may also be referred to as "non-contact water"), and each is directed to a separate and dedicated portion of the approved system. Contact water is water collected from either underground mining sources or dewatering wells that, due to either "contact" with mining products or mined materials or naturally occurring contained constituents, exceeds one or more of the Division Profile I water quality reference

values. Contact Water may only be consumptively used in process components unless the quality is modified to meet the criteria required for infiltration. Dewatering water that meets all the Division Profile I water quality reference values, or water quality criteria that may be specific to a particular WPCP, is termed Infiltration Water and may be either discharged to infiltration basins or used for other approved consumptive uses outside containment, such as dust control.

The most common reference value exceedances, especially for water extracted through dewatering wells, are for iron and manganese, which are usually the result of oxygen depleted groundwater. Studies demonstrate that aeration alone will often bring this water quality within the Profile I reference values and make the water suitable as infiltration water. Therefore, this natural chemical process, combined with physical methods of segregating better quality water in the underground workings to prevent contamination, results in a much smaller proportion of the total volume of dewatering water being classified as Contact Water.

Cortez Hills Fresh Water Reservoir: The Cortez Hills Fresh Water Reservoir is located immediately south of the Cortez Hills Pit and has a working volume of approximately 16 million gallons. The reservoir measures approximately 500 feet by 500 feet and is 10 feet deep. The reservoir is designed to store fresh, non-contact water and collected surface water and will be operated with a 2-foot freeboard and available capacity for the direct precipitation from a 100-year, 24-hour storm event. The reservoir is lined with a single layer of 60-mil HDPE placed over a smooth drum-rolled subbase cleared of protrusions larger than 1-inch in diameter. The reservoir is not leak detected but the liner is marked with approximate volume and maximum volume markings.

A fresh water line from the Cortez Hills Fresh Water Reservoir to the HCCUEP declines (WPCP NEV2016104) was constructed soon after the approval of the HCCUEP WPCP in 2017.

F-Canyon Underground Event Pipeline: The Cortez Hills F-Canyon Underground Event Pipeline was approved by the Division 30 May 2006 as an EDC to the Cortez Mine WPCP NEV0000023 during the early Cortez Hills underground exploration stage. The Event Pipeline was transferred into the Cortez Hills Project Permit as part of the new Permit application review. The Event Pipeline conveys contact water from the underground workings to the WSR.

The pipeline is a 6-inch diameter HDPE pipe placed on the surface, primarily along the main Project access road. Road crossings are accomplished by placing the pipeline within a large-diameter pipe for secondary containment and routing it beneath the road. A maximum flow of approximately 200 gpm is anticipated from perched zones that may be encountered during drilling or advancement of the underground workings.

Analysis indicates the perched groundwater may have Profile I reference value exceedances for iron and manganese. Therefore, the Event Pipeline reports directly to the double-lined and leak detected Water Storage Reservoir and the water is evaporated or retained in containment for use in the beneficiation process.

To handle the anticipated flow volumes and to plan for potential future deposit development, the Cortez Hills F-Canyon Underground Water Handling System proposal was submitted as a group of three engineering design change modifications, approved October 2006. The modifications, each of which is tied to the appropriate project where the dewatering water is discharged or consumed, affected the Cortez Mine Project (WPCP NEV0000023), the Pipeline Project (WPCP NEV0093109), and the Pipeline Infiltration Project (WPCP NEV0095111). All three projects are located within the same Crescent Valley hydrogeologic region (State of Nevada Hydrographic Basin #54) as the dewatering water source. The management of dewatering water was also included in the Range-Front Declines expansion minor modification, approved by the Division in November 2015.

The Cortez Gold Mine (WPCP NEV0000023) portion of the Cortez Hills F-Canyon Underground Water Handling System was transferred into the Cortez Hills Project Permit as part of the new Permit application review and was originally comprised of the following: a new 6-inch diameter, surface run, HDPE Contact Water Pipeline that incorporates the existing Event Pipeline (see discussion above); four subsequently permanently closed CIL (settling) tanks; two existing 8-inch diameter HDPE pipelines in a lined pipeline corridor; the existing synthetic-lined and leak detected Water Storage Reservoir (WSR) (see description below); and the existing synthetic-lined and leak detected Tailings Impoundment 7 (TA-7). The latter components were also transferred into the Cortez Hills Project Permit as part of the new Permit application review.

Range-Front Declines Contact Water Pipeline: The November 2015 Range-Front Declines minor modification includes a new approximately 3,200-foot long Contact Water Pipeline to convey contact water from the Range-Front Declines Portal Underground Washbay Sump to a tie-in with the F-Canyon Contact Water Pipeline. From the tie-in, the comingled F-Canyon and Range-Front Declines contact water is conveyed via the existing surface pipeline to the WSR. The Range-Front Declines Contact Water Pipeline is a dual-walled buried pipeline with a 6-inch diameter HDPE primary pipe inside a 10-inch diameter HDPE secondary pipe. Leak detection riser ports located at three topographically low points along the pipeline alignment are designated in the Permit as monitoring points LD-UWBP1, LD-UWBP2, LD-UWBP3, and LD-UWBP4. The tie-in features a check valve to prevent backflow of F-Canyon contact water into the Range-Front Declines Contact Water Pipeline.

Water Storage Reservoir: The Water Storage Reservoir (WSR) was constructed in 1990 within the southeast corner of Tailings Impoundment 4 (TI-4) which was

active from 1973 to 1976 and permanently closed and reclaimed in 2004. The WSR is a double-lined pond with leak detection that is divided into two 17.2 million gallon North and South Ponds by a 10 foot high internal berm. The design depth is approximately 17 feet and can store approximately 50 million gallons at 2 feet of freeboard. The WSR was originally designed to store decant water from the tailings impoundment, water from the groundwater pumpback and remediation system (WPCP NEV0000023), and overflow from the Mill #1 thickeners and is now also used for management of contact water. The original design consisted of a 60-mil Very-Low-Density Polyethylene (VLDPE) primary liner, a 40-mil VLDPE secondary liner, and a layer of polyethylene geonet between the liners to serve as an LCRS. To address maintenance issues, the primary VLDPE liners for the north cell and south cell were replaced with 60-mil HDPE in 1995 and 1997, respectively. The current LCRS gravity drains to a sumps located outside of the WSR.

An EDC approved by the Division May 2017, proposed relining of the WSR and a modification to TA-7. The new lining system, from bottom to top, consists of 12-inch compacted dry tailings, 60-mil secondary HDPE liner, geonet, and 60-mil primary HDPE liner. The current LCRS sumps was enlarged and the gravity draining leak detection ports was plugged with grout. The proposed leak detection port will be a sloping 12-inch diameter HDPE leak detection riser.

The modification to TA-7 repaired the liner damage on the west embankment and will modify the south east corner in Cell 2 to contain two settling ponds and a clear water pond. TA-7 held the sediment excavated from the WSR relining process. TA-7 will be used when the Solid Liquid Separation (SLS) Plant is down for maintenance or repairs. The as-built report was approved by the Division in May 2018.

The WSR receives and transports contact water from the Range Front Declines, F-Canyon Declines, groundwater pumpback wells, and HCCUEP (NEV2014107) to the facilities at Pipeline (WPCP NEV0093109).

Solid-Liquid Separation (SLS) Plant: A SLS Plant was approved by the Division as an EDC in August 2011, for construction near the F-Canyon underground portal. After the completion of construction, the as-built report was submitted in June 2012. Contact water is diverted from the existing 6-inch diameter contact water Pipeline to the SLS Plant for removal of suspended solids prior to conveyance of the clarified contact water to the WSR. With the permanent closure of the Cortez Mine CIL tanks in 2013-2014, the SLS Plant is the sole component responsible for clarifying Cortez Hills contact water. The SLS Plant is comprised of two adjoining reinforced concrete pads, designated as Area 1 and Area 2, and each pad measures approximately 37 feet by 60 feet in plan. Area 1 is constructed with an 8-foot high containment stemwall on 4 sides and Area 2 is constructed with a 4-foot high containment stemwall on 3 sides with an open side adjacent the filter press location for equipment access.

Area 1 houses a carbon steel 8-foot diameter by 7-foot high (2,632-gallon) agitated flocculant mix tank and a carbon steel 35-foot diameter by 15-foot high (108,000-gallon) elevated clarifier tank. Area 2 houses a small laboratory and control center room, a polyethylene 5-foot diameter by 7-foot high (1,000-gallon) polymer (flocculant) feed tank, a carbon steel 10-foot diameter by 15-foot high (8,808-gallon) sludge holding tank, a 55 ton per day plate-and-frame filter press, and an approximately 19-foot square solids storage area located below the elevated filter press. The containment areas each provide containment in excess of the regulatory minimum 110% of the largest vessel volume. Each containment area is constructed with a sloping floor and collection sumps for returning spillage back into containment vessels. All man doors and roll-up doors are curbed to prevent escape of spills and the solids storage area floor is sloped toward the interior of the pad and a collection sump trough.

For treatment, contact water is conveyed to the agitated flocculent mix tank where approved flocculant is added at an approved dosage. The only Division-approved flocculant for use in the SLS Plant is HYPERFLOC® AF 300. The flocculated mixture is conveyed to the clarifier tank where a concentrated sludge containing approximately 24% solids forms. Clarified water exits the top of the clarifier tank through a launder and is conveyed through the contact water Pipeline to the WSR. The sludge is pumped from the bottom of the clarifier tank and split into two streams; one stream is recirculated to the mix tank to aid in the flocculation process and the other stream is pumped to the sludge holding tank that is designed to store the sludge for a 4-hour period. Following the holding period, the sludge is pumped to the filter press to form a dewatered 49% solids dry cake that is discharged to the solids storage area. The solids are removed from the storage area with a front-end loader and trucked to the Pipeline Mill #2 (WPCP NEV0093109) for gold recovery. The dry cake is characterized quarterly in accordance with Permit requirements.

The SLS Plant operates continuously for 20 hours per day and sits idle for four hours per day, although contact water runs continuously through the clarifier tank and the sludge is recirculated during the plant idle time. In addition, the plant is only manned for eight hours per day. During the period the SLS Plant is unmanned, alarms are in place at the underground batch plant, which is located 350 feet to the southeast and is manned at all times, to alert personnel of any abnormal conditions. As designed, the SLS Plant treats approximately 1.1 million gallons of contact water and produces approximately 55 tons of dewatered dry cake daily.

The 6-inch diameter Contact Water Pipeline is comprised of the Event Pipeline that exits the F-Canyon Portal and a subsequently added branch pipeline located approximately 500 feet upgradient of the former Mill #1 CIL tank containment. The branch pipeline was tied into the existing Event Pipeline with a valve. Until the Mill #1 CIL tanks were permanently closed in 2014, the branch pipeline was used as the primary means (Contact Water Pipeline) to convey contact water by

gravity from the decline, at a rate of up to 500 gpm, to the CIL tanks for settling of suspended solids. The portion of the original Event Pipeline downgradient of the branch pipeline valve remained as a bypass pipeline to allow conveyance of contact water directly to the WSR South Cell, and with the permanent closure of the CIL tanks, the original Event Pipeline portion of the Contact Water Pipeline is once again the only pipeline for conveying contact water to the WSR. All pipeline runs are on the surface. The branch pipeline from the Event Pipeline to the Mill #1 CIL tanks must be permanently closed in accordance with an approved final plan for permanent closure (FPPC).

Prior to the permanent closure of the Mill #1 CIL tanks, clarified contact water was conveyed from the CIL tanks through an 8-inch diameter HDPE pipeline, located in a synthetic-lined pipeline corridor, to the southeast corner of the WSR and directly into the 18-inch diameter HDPE Cross-Valley Contact Water Pipeline (permitted under WPCP NEV0093109) for use in the Pipeline Mill #2 or associated heap leach circuits. The now disconnected pipeline from the CIL tanks to the WSR and Cross-Valley Contact Water Pipeline must be permanently closed in accordance with an approved FPPC.

The contact water bypass pipeline discharge into the WSR South Cell is equipped with an outlet diffuser constructed of a section of 8-inch diameter HDPE pipe with a glued end-cap and 2-inch diameter holes drilled on the top and both sides to reduce the potential for damage to the HDPE pond liner system.

Infiltration water can be added, if needed for approved consumptive use, to the Contact Water Pipeline near the F-Canyon Portal. A section of 6-inch diameter HDPE pipeline, equipped with a gate valve and directional check valve, is designed to convey infiltration water from the 24-inch diameter Infiltration Water Pipeline at a location downgradient from the F-Canyon Portal Surge Tank into the Contact Water Pipeline in the event additional flow volume is required. The gate valve and check valve are designed to prevent back-flow of contact water into the Infiltration Water Pipeline. The F-Canyon Portal Surge Tank and the Infiltration Pipeline are permitted under WPCP NEV0095111.

Contact water flow rate data are collected at the F-Canyon Portal, and contact water samples are collected for water quality analyses at the F-Canyon Portal and at the discharge to the WSR South Cell.

The Cortez Hills F-Canyon Underground Fresh Water Supply System was approved by the Division in September 2007, as an EDC modification to the Cortez Mine Permit (WPCP NEV0000023), during the underground exploration phase of the Cortez Hills Project development. The system was transferred into the Cortez Hills Project Permit as part of the new Permit application review.

The approved design was for the installation of two permanent fresh water storage tanks and associated conveyance pipelines for delivery of water to the F-Canyon Portals to support underground operations. Installation of the permanent storage and conveyance system was prompted by lower than anticipated volumes of fresh water being produced from surface dewatering wells and sources encountered in the underground workings. Additional fresh water for the system was pumped from Pediment Pumping wells PPW-05 and PPW-06 to supplement the originally identified sources of water needed for underground operation. The water quality in these wells exceeds Division Profile I reference values. PPW-06 was subsequently abandoned and mined through.

Fresh water is conveyed from the supply wells to the storage tanks via a single-wall 4-inch diameter HDPE pipeline buried a minimum of 4 feet bgs. The water meeting Profile I reference values does not warrant the use of secondary pipeline containment. The conveyance pipeline is tied into the surface-located main 12-inch diameter HDPE fresh water dewatering pipeline with a T-fitting and valve at a point approximately 200 feet southeast of the tanks, adjacent to the main Project access road.

Fresh water storage consists of two cylindrical steel tanks, the Primary and Secondary Fresh Water tanks, measuring approximately 9.5 feet in diameter by 21 feet high. The tanks are bolted to a 40-inch-thick slab of concrete formed, in plan view, in the shape of an elongated hexagon with maximum footprint dimensions measuring 12.5 feet wide and 27 feet long. The Primary Fresh Water Tank is filled from the base via a section of 4-inch diameter steel inlet pipe equipped with a butterfly valve. Both tanks are connected to a 4-inch diameter gravity flow distribution pipeline through a short outlet pipe to a common wye fitting located at the base of the tanks. Each outlet pipe has a valve to control flow from an individual tank. The two tanks are also connected, near the base, with a section of 15-inch diameter steel pipe equipped with a double-seated knife-gate valve that allows rapid transfer of water between the tanks as needed.

The maximum capacity of each tank is limited to approximately 10,000 gallons by placement of an emergency gravity overflow outlet at a height of approximately 20 feet on the Primary Fresh Water Tank and an operating gravity overflow pipeline at a height of about 18 feet on the Secondary Fresh Water Tank. The operating overflow pipeline is connected back into the main 12-inch diameter HDPE fresh water dewatering pipeline at an elevation conducive to gravity flow away from the tanks only. The 4-inch diameter distribution pipeline is connected to a distribution manifold located at the F-Canyon Portal, located approximately 550 feet northwest of the fresh water storage tanks. The Permit requires monitoring of flow rate and water quality of the fresh water at the storage tank outlet to the distribution pipeline.

Other Existing Components Transferred to the Cortez Hills Project

Several existing process components, primarily associated with the nearby Cortez Mine (WPCP NEV0000023), were transferred into the Cortez Hills Project Permit as part of the new Permit application review. The identified components may be used immediately, at some future time, or not at all. Some components may require certification or further approval prior to use, and ultimately, all sources must be permanently closed in accordance with an approved FPPC per regulation. The process components transferred to the Cortez Hills Permit include Tailings Impoundment 7, Cortez Mine Underdrain Pond, Cortez Mine Stormwater Pond, Water Storage Reservoir, monitoring wells and dewatering ports, and associated pipelines, channels, sumps, pumps, and tanks for the conveyance and control of fluids. As described above in this Fact Sheet, components that were previously constructed at the F-Canyon Portal as part of the pre-mining underground exploration phase of Cortez Hills Project development (e.g., F-Canyon Underground Event Pipeline and F-Canyon Underground Water Handling System) were also transferred to the new Cortez Hills Permit.

Demolition of the Cortez Mill #1 and Roaster (WPCP NEV0000023) was completed in 2014 in accordance with an approved FPPC; however, the associated Tailings Impoundment 7 (TA-7), and its associated Underdrain Pond and Stormwater Pond, are not currently being closed. A Schedule of Compliance item in the Cortez Hills Permit requires submittal of an updated engineering design for review and approval prior to either the commencement of construction of the previously approved, but never built, Stages 3 through 5 of TA-7, or the recommencement of operation of any associated historic Cortez Mine beneficiation process component that has been in temporary or permanent closure. This is to ensure that all components will meet current regulatory requirements and Division approval prior to any plan to resume beneficiation at the historic Cortez Mine site.

Cortez Mill #1: Cortez Mill #1 dates from 1969, and was constructed within concrete slab-and-stem wall secondary containment with adequate capacity to contain 110% of the largest vessel volume. Components within the Mill #1 secondary containment included a 9.5-foot by 14-foot rod mill, an 11-foot by 14-foot ball mill, vibrating screens, cyclones, five 80-foot diameter by 16-foot tall conventional rake thickeners, five 7-foot diameter by 8-foot tall carbon columns, eight 30-foot diameter agitator tanks, static launder screens, five individual carbon strip circuits, an electrolytic cell, a discharge bin, a stainless steel indirect-fired kiln, and a small refractory-lined furnace. Each carbon strip circuit had two strip vessels, a 15-foot pipe-and-tube heat exchanger for steam heat transfer, and three 20-foot pipe-and-tube heat exchangers to recycle heat from the strip vessel discharge to the strip vessel feed. An 8-inch diameter HDPE pipeline previously carried excess solution from the thickeners to Solution Pond 1; however, with permanent closure of the thickeners and Solution Pond 1, this Thickener Overflow (TO) pipeline is no longer active. Approximately 750 feet of the pipeline is buried and 3,770 feet is on the surface. Buried portions of the pipeline are leak detected with a perforated 4-inch diameter corrugated pipeline placed in a 1-foot-deep, gravel-filled trench;

however, as a result of the pipeline being disconnected, the leak detection monitoring was removed from the Cortez Hills Permit as part of the 2015 renewal. The TO pipeline must be permanently closed pursuant to an approved FPPC.

Tailings from Mill #1 were conveyed to TA-7 (see below) over a distance of approximately 5,500 feet through an 8-inch diameter HDPE pipeline. The tailings pipeline is buried for a distance of approximately 1,200 feet without secondary containment or leak detection. Secondary containment for this pipeline would need to be addressed prior to any plan to resume operation.

A Circulating Fluid Bed Roaster (WPCP NEV0000023), associated with Mill #1, was constructed by Lurgi Gesellschaft mit beschränkter Haftung (GmbH) in 1989 to oxidize carbonaceous and sulfidic ore. Like Mill #1 itself, the Roaster was not included in the transfer to the Cortez Hills Permit, and was dismantled in 2014. Non-acid generating material remaining on a roaster ore stockpile near the Roaster was removed and processed for gold recovery, and the stockpile was permanently closed with the Roaster in 2014.

Tailings Impoundment 7 (TA-7): TA-7, the only remaining operational Cortez Mine tailings impoundment, was approved for construction in 1994 as a fully lined and leak detected facility. The facility has a footprint of approximately 46 acres and is permitted for five phases of construction with an ultimate crest elevation of 4,859 feet AMSL and a cumulative maximum design storage capacity of 6.0 million tons. The TA-7 facility is divided into east and west halves designated as Cell-1 and Cell-2, respectively. Phase 1, the Cell 1 Starter Dam, was constructed in 1994/1995, and Phase 2, the Cell 2 Starter Dam, was constructed in 1996/1997. The three phases remaining to be constructed are identified as the Stage 1 Raise, Stage 2 Raise, and Stage 3 Raise. A Schedule of Compliance item in the Cortez Hills Permit requires advance re-submittal and approval of updated designs prior to construction of the remaining phased stages.

For the existing construction, tailings slurry was rotationally spigotted in thin, subaerially deposited lifts sloped toward vertical decant towers located in each cell. Construction of the Stage 2 Raise will eliminate the separation of the cells and only the Cell 2 decant tower will be used. The decant towers drain supernatant solution via a 10-inch diameter HDPE pipeline to a pump house located adjacent to the Underdrain Pond. From the pump house, solution is pumped to the WSR (see below) for use as makeup water.

The TA-7 liner system is comprised of a 12-inch thick LHCSL base constructed of reworked near-surface clayey native soils and silty clay tailings from the now permanently closed Tailings Impoundment 5 (TI-5), placed in two 6-inch lifts and compacted to a maximum permeability of 1×10^{-6} cm/sec and overlain with a layer of 60-mil HDPE geomembrane liner material. Textured liner was used in areas beneath the impoundment embankment, to improve embankment stability, and

smooth liner was used within the impoundment basin. A minimum 18-inch thick underdrain blanket was placed on the liner with an integral solution collection piping network comprised of perforated 4-inch diameter CPEP placed in a diagonal cross-gradient pattern (southeast to northwest) to promote drainage of the tailings material. The 4-inch CPEP is placed on 100-foot centers over the entire impoundment basin except for a 200-foot wide zone along the downgradient (north) edge of each cell where the spacing is reduced to 50-foot centers to accommodate potentially higher hydraulic head. The solution collection piping network for each cell reports to a perforated 6-inch diameter CPEP Main Collection Header located along the west interior edge of each cell. Each Main Collection Header reports to a perforated 12-inch diameter CPEP Solution Channel Pipe located beneath protective gravel cover in the 80-mil HDPE-lined Solution Collection Channel on the downgradient (north) edge of the impoundment. The impoundment 60-mil HDPE liner transitions to the 80-mil HDPE channel liner upgradient of the collection channel.

Leak detection for the TA-7 facility includes systems for the impoundment, the solution collection channel, and the Underdrain Pond. "Tiered" systems were constructed at the downgradient toe of TA-7, at the toe of the Cell-1/Cell-2 divider berm, and immediately upgradient from the Solution Collection Channel. The Tiered systems are comprised of a "Leak Collection Riser" constructed over a "Leak Detection Sump". The Leak Collection Riser design is a subgrade leak detection system comprised of a 1-foot deep v-trench that was constructed on the LHCSL base beneath the synthetic liner, lined with 40-mil polyvinyl chloride (PVC), and equipped with a perforated 4-inch diameter HDPE solution collection pipe placed within gravel fill encased in 10-ounce per square yard (oz/yd^2) geotextile to collect and convey fugitive solution to solid 8-inch diameter HDPE vertical riser pipe sumps. The Leak Detection Sump design is of identical construction but located beneath the LHCSL base and on top of another 40-mil PVC liner placed on the prepared subgrade. Both types of leak detection sumps daylight to the Solution Collection Channel or Underdrain Pond via 4-inch diameter HDPE emergency overflow pipes. The Solution Collection Channel has only the primary LCRS constructed between the synthetic liner and the LHCSL base.

Cell 2 of TA-7 was constructed with basin and embankment piezometers, but all had failed by December 2008. Consequently, the piezometer monitoring was removed from the Permit as part of the 2015 Cortez Hills renewal.

Cortez Mine Underdrain Pond: The Solution Collection Pipe and Solution Collection Channel convey reclaim solution to the Cortez Mine Underdrain Pond (UDP). The UDP was reconstructed, along with the Cortez Mine Stormwater Pond (see below), as part of an EDC approved by the Division in December 2008, to address issues related to liner displacement in the original ponds caused by the rising groundwater elevation.

Reconstruction of the UDP, as part of the EDC approved by the Division December 2008, included expanding the pond crest dimensions to 450 feet long by 150 feet wide. Pond sediment and the original liners were removed and disposed in TA-7. The HDPE liners were shredded prior to burial to eliminate the potential to create a barrier or preferential pathway(s) that could cause solution to pond or channel. The pond base was over-excavated and the subgrade was moisture conditioned and compacted to a minimum 95% maximum dry density (ASTM Method D1557) to a depth of 12 inches. A layer of 12-oz/yd^2 non-woven geotextile was placed over the prepared subgrade and 3V:1H side slopes. The excavation was then backfilled with rock fill (100% less than 8-inch diameter) to an elevation 24 inches below the pond bottom of 4,773 feet AMSL; over which 18 inches of drain rock (100% less than 2-inch diameter) was placed; followed by a 6-inch thick layer of cushion layer material (100% less than 1-inch diameter). The rock fill, drain rock, and cushion layers were enveloped in 12-oz/yd^2 non-woven geotextile to provide filtration and a cushion for the new synthetic liner system.

The UDP synthetic liner system is comprised of a 60-mil HDPE secondary liner and an 80-mil HDPE primary liner with a geonet LCRS that reports to two subgrade collection sumps (UDP-LD1 and UDP-LD2). The LCRS sumps are filled with clean gravel encapsulated within a layer of 12-oz/yd^2 non-woven geotextile. Each sump is constructed with a 12-inch diameter HDPE evacuation riser pipe that is perforated within the sump drain rock. Evacuation risers for the LCRS sumps daylight at points along the east and west halves of the south crest of the pond.

Groundwater entering the rock fill sump beneath the UDP liner system can be evacuated through two 12-inch diameter HDPE riser pipes that serve as Groundwater Monitoring Ports (UDP-GWP). The ports are centrally located along the east and west half of the pond and the port risers daylight on the north crest of the pond where they penetrate the pond liner system through fabricated boots to an elevation 1.5 feet above the pond crest. The port riser casings are slotted within the rock fill sump and can be equipped with portable, level-controlled submersible pumps that will maintain the groundwater elevation below the pond base elevation of 4,773 feet AMSL, as necessary.

Lowering of the groundwater elevation is not anticipated to be required during the first four years of pond operation. However, as a schedule of compliance requirement, an additional EDC was approved by the Division in August 2009, that provides for construction of a permanent groundwater dewatering system in the event the groundwater elevation beneath the pond liner exceeds 4,770 feet AMSL. Based on modeled potential groundwater inflows, a 100 gpm stainless steel submersible well pump will be permanently installed in the west side GWP riser (UDP-GWP). Equipped with a pressure transducer to evaluate water level, solution will be pumped through a 3-inch diameter steel pipeline into a 10-inch diameter HDPE pipeline for conveyance to the North Water Storage Reservoir. Pumping will be initiated at a groundwater elevation of 4,772 feet AMSL and will stop once

a groundwater elevation of 4,771 feet AMSL is achieved. A dedicated back-up diesel-electric generator provides power in the event of a loss of line power at the facility.

Underdrain solution from the TA-7 and solution from the Cortez Groundwater Pumpback system may report to the reconstructed UDP at a maximum design rate of 300 gpm. The reconstructed UDP has a design capacity of approximately 649,000 gallons at the base of the spillway (elevation 4,776 feet AMSL) that hydraulically links the UDP to the Cortez Stormwater Pond located immediately to the west. The distance between the spillway elevation and pond crest elevation of 4,778 feet AMSL effectively creates the 2-foot freeboard in the pond.

The reconstructed UDP is designed with two pond evacuation risers constructed of 24-inch diameter, SDR 17, HDPE pipe located on the south side of the pond parallel to the trace of the evacuation risers for the LCRS sumps. The pond evacuation risers are equipped with two submersible pumps, each rated for a nominal 350 gpm pumping rate, with a dedicated back-up diesel power generator. The pumps are level-controlled and are automatically activated if the water level in the pond reaches 4,775.5 feet AMSL. Solution removed from the pond is conveyed from each pump through a new 8-inch diameter Schedule 40 steel pipeline to the existing pump house and onto either TA-7 or the WSR via an 8-inch diameter HDPE pipeline. The pond and pump design will maintain the minimum 2-foot freeboard while accommodating the pond operating inventory volume from all inflows plus the volume generated by the 25-year, 24-hour storm event. The 100-year, 24-hour storm event volume is accommodated by diverting approximately 135,000 gallons of solution to the Cortez Stormwater Pond via a shared, single-lined HDPE spillway.

Cortez Mine Stormwater Pond: The Cortez Mine Stormwater Pond (SWP) is located west and adjacent to the UDP and is a single-lined pond without leak detection. The SWP was also reconstructed as part of an EDC approved by the Division December 2008 to address issues related to liner displacement in the original ponds caused by the rising groundwater elevation.

The reconstruction consisted of removing all solution and sediment from the existing SWP, perforating the existing, in-place 60-mil HDPE liner on the side slopes to provide a minimum 25% open area, and leaving the bottom portion of the existing 60-mil HDPE pond liner in place and intact. Similar to the reconstructed UDP (see above), a layer of 12-oz/yd^2 non-woven geotextile was placed over the existing synthetic pond liner, which is also underlain by a layer of 10-oz/yd^2 non-woven geotextile. The original lined pond excavation was then backfilled with rock fill (100% <8-inch diameter) to an elevation 24 inches below the pond bottom of 4,773 feet AMSL; over which 18 inches of drain rock (100% <2-inch diameter) was placed; followed by a 6-inch thick layer of cushion layer material (100% <1-inch diameter). The rock fill, drain rock, and cushion layers were enveloped in 12-

oz/yd^2 non-woven geotextile to provide filtration and a cushion for the new, single layer, 80-mil HDPE pond liner. The new HDPE liner is carried across and beyond the original liner at the pond crest and tied into a new key trench located approximately 5 feet beyond the original liner key trench. The reconstructed SWP measures approximately 222 feet square at the crest.

Groundwater entering the rock fill sump beneath the SWP liner can be evacuated through any of four 12-inch diameter HDPE Groundwater Monitoring Port (GWP) riser pipes. Each GWP is located at a corner of the square pond footprint and where it penetrates the liner through a boot and extends about 1.5 feet above the pond crest. The port riser casings are slotted within the rock fill sump and can be equipped with a portable level-controlled submersible pump to maintain the groundwater elevation below the pond base elevation of 4,773 feet AMSL, as necessary.

Lowering of the groundwater elevation is not anticipated to be required during the first four years of pond operation. However, as a schedule of compliance requirement, an additional EDC was approved by the Division in August 2009, that provides for construction of a permanent Groundwater Dewatering System in the event the groundwater elevation beneath the pond liner exceeds 4,770 feet AMSL. Based on modeled potential groundwater inflows, a 1200 gpm stainless steel submersible well pump will be permanently installed in the northeast corner GWP riser (SWP-GWP). Equipped with a pressure transducer to evaluate water level, solution will be pumped through a 10-inch diameter steel pipeline into a 10-inch diameter HDPE pipeline for conveyance to the North Water Storage Reservoir. Pumping will be initiated at a groundwater elevation of 4,772 feet AMSL and will stop once a groundwater elevation of 4,771 feet AMSL is achieved. A dedicated back-up diesel-electric generator provides power in the event of a loss of line power at the facility.

The reconstructed SWP is designed with a pond evacuation riser constructed of 16-inch diameter, SDR 17, HDPE pipe located on the east side of the pond near the southeast corner. The pond evacuation riser is equipped with a manually controlled submersible pump rated for a nominal 50 gpm pumping rate. Solution removed from the pond is conveyed from the SWP pump through a new 3-inch diameter Schedule 40 steel pipeline directly to the UDP. The reconstructed SWP has a calculated solution capacity of 609,000 gallons with 2 feet of freeboard remaining. The pump design allows for transfer of all SWP solution inventory located below the maximum spillway and 2-foot freeboard elevation (4,776 feet AMSL) in less than 10 days. The SWP evacuation pump is connected to line-current only and emergency power must be supplied by a portable generator. Also, due to the single liner construction, the Permit requires the SWP be evacuated within 20 days of any event that introduces process solution or whenever an overflow from the UDP to the SWP occurs.

Pit Lake Assessment: The modeling updates with the 2018 major modification/renewal application predicts that, once mining and dewatering activities cease, the groundwater level will rebound to an elevation of approximately 4,840 feet amsl at Cortez Hills Pit and 4,800 feet amsl at Cortez Pit after 130 years, forming a pit lake in the Cortez Pit. The pit lake will be on BLM land and has a predicted surface area of 22 acres.

The initial water quantity and quality modeling for the predicted Cortez Hills Pit Lake was completed by Geomega, Inc. (Geomega) and compiled in two 2007 reports entitled, "*Ground Water Flow Modeling Report for the Cortez Hills Expansion Project,*" and "*Cortez Hills Expansion Project: Pit Lake Water Quality Prediction,*" which were supplemented by a Geomega 2008 report entitled, "*Groundwater Quantity and Quality Assessment of the Revised Cortez Hills Pit Design, May 14, 2008.*"

The 2007 and 2008 pit lake water model simulations were run for a period of 100 years beyond the end of dewatering activities. According to the model, the Cortez Hills Pit Lake will begin to form approximately 3 years after the end of dewatering and will recover to 80% of full recovery 16 years after dewatering ceases. At 100 years, the resulting terminal pit lake will have a surface area of approximately 18 acres and the water will be slightly alkaline, with a pH of approximately 8.9 standard units. Other 2008 pit lake water quality predictions for 100 years after dewatering ceases include 0.011 milligrams per liter (mg/L) antimony, 0.058 mg/L arsenic, 1.7 mg/L fluoride, 0.0016 mg/L mercury, 0.004 mg/L thallium, and 620 mg/L total dissolved solids (TDS).

The modeled Cortez Hills Pit Lake predictions were validated by comparing them to the water quality of the former Cortez Pit Lake, which was located approximately 6 miles from the Cortez Hills Pit in a pit with similar lithology. Actual Cortez Pit Lake chemistry after 20 years was in good agreement with that predicted for the modeled Cortez Hills Pit Lake after 20 years. Data from an analog pit lake test with representative waste rock backfill, used to quantify the influence of in-pit waste rock translocation on water chemistry, was also in agreement.

The 2018 pit lake model concludes that, based on the results of the groundwater flow model and on numerical and bench-scale analyses, there will be no impact on groundwater surrounding the pit after infilling. The pit lake chemogenetic pathways will result in consistently good water quality, comparable to existing surface waters in Crescent Valley.

Ecological Risk Assessment

The 2007 and 2008 Geomega pit lake modeling included ecological risk assessments (ERAs) to characterize potential chemical risk to wildlife and fish resulting from surface water metal constituents in the Cortez Hills Pit Lake.

Constituents of potential concern (COPCs) were identified by comparing predicted pit lake concentrations at year 100 to ecological screening benchmarks. COPCs identified for quantitative risk analysis included mercury and selenium. Literature on pH effects on fish was also reviewed for screening level assessment purposes.

The conclusions of the risk assessments are that chemical risk is unlikely for wildlife following exposure to metal constituents in the Cortez Hills Pit Lake; that estimated fish tissue concentrations should be at or below U.S. Federal Drug Administration action levels and within background concentrations for Nevada; and that pH and other physical chemistry aspects of the pit lake should be well within acceptable ranges for fish populations.

Although the Division Profile III parameter list and reference values, developed in 2014 for use in pit lake screening level ecological risk assessments, were not available during the 2007 and 2008 pit lake evaluations, it is worth noting in retrospect that all 2008 predicted concentrations are below the corresponding Profile III reference values, except for the predicted pH (8.9 standard units), which is slightly elevated above the Profile III reference pH range (6.5-8.5 standard units). This further supports the conclusion that the pit lake water quality is unlikely to adversely affect the health of human, terrestrial, or avian life. However, the 2008 pit lake study did not evaluate the Profile III parameters lithium, molybdenum, strontium, tin, uranium, or vanadium. The 2015 pit lake study and ecological risk assessment must evaluate all Profile III parameters, this report is currently under review as of May 2017.

Petroleum-Contaminated Soil Management

An EDC for a Petroleum-Contaminated Soil (PCS) Management Plan was approved by the Division in April 2010. No PCS storage or disposal is approved for the facility. The Permittee is required to remove all PCS from the facility for provisional storage and disposal at the approved Pipeline Project waste rock dump (WPCP NEV0093109) in accordance with the approved PCS Management Plan and the Division's Guidance for Mine-Site PCS Management Plans.

C. Receiving Water Characteristics

In the Project area, groundwater is localized in structural bedrock aquifers with no substantial water-bearing zones in the alluvium. Groundwater flow is controlled by numerous north-south and east-west trending faults and fractures. Local bedrock has generally low hydraulic conductivity. In general, groundwater is shallower under the northwest and south portions of the Cortez Hills facility, which are located on the west side of the Crescent Fault (e.g., Canyon WRF and Grass Valley Heap Leach Pad), and deeper under the north and east parts of the Cortez Hills facility on the east side of the Crescent Fault (e.g., Cortez Hills Pit, F-Canyon

Portal, North WRF, and South WRF). The shallowest groundwater on the Project site is in Crescent Valley on the north side of the old Cortez Mine facility.

Groundwater depths near the Cortez Hills Pit range from approximately 500 to 1,600 feet bgs. Groundwater depths on the north, south, and west sides of the Grass Valley Heap Leach Pad range from approximately 100 to 250 feet bgs, while groundwater depths on the east side of the pad are greater than approximately 900 feet bgs. Groundwater in the vicinity of the Canyon WRF is locally as shallow as approximately 30 to 60 feet bgs. Groundwater in the area of transferred Cortez Mine components, located on the edge of the Crescent Valley Playa, lies at a depth of 11 to 59 feet bgs.

Surface water flow is intermittent and occurs in response to storm events or during periods of snowmelt. Some stream segments exhibit continuous flow over short reaches that are fed by springs or seeps.

Receiving waters are located in Crescent Valley (State of Nevada Hydrographic Basin #54) and the northern portion of Grass Valley (State of Nevada Hydrographic Basin #138). Grass Valley is closed topographically. The Toiyabe Range separates Grass Valley from the southernmost part of Crescent Valley; the southern Cortez Mountains and northernmost section of the Simpson Park Range separate the northern part of Grass Valley from Pine Valley to the east (State of Nevada Hydrographic Basin #53). Crescent Valley is semi-closed topographically, bordered by the Shoshone Range on the west, the Cortez Mountains on the east, the Toiyabe Range on the south, and the Tuscarora Mountains on the northeast. A low topographic divide on the northwest end of Crescent Valley separates that valley topographically from the Humboldt River, but the Permittee has determined through regional hydrologic studies that, despite the topographic high, some groundwater flows from Crescent Valley toward the Humboldt River.

Previous data indicated that groundwater in Crescent Valley was hydrologically isolated from groundwater in Grass Valley and Pine Valley; however, in 2014 the Permittee determined from hydrologic studies that groundwater in the western portion of the Pine Valley Hydrographic Basin is being drawn down by the Permittee's dewatering activities in Crescent Valley. At this point, the interbasin groundwater transfer appears to be more of a water supply issue than a water quality concern. However, this will be evaluated further in future pit lake studies.

Baseline groundwater chemistry for both Crescent Valley and Grass Valley is circum-neutral (pH) and of the sodium-calcium-bicarbonate type. Baseline characteristics of several analytes periodically exceed Division Profile I reference values (drinking water standards) in one or more locations for aluminum, antimony, arsenic, cadmium, fluoride, iron, lead, magnesium, manganese, mercury, nitrate + nitrite, pH, selenium, silver, sulfate, total dissolved solids, and thallium. Maximum

baseline concentrations of arsenic exceed the Division Profile I reference value of 0.01 mg/L in both areas.

D. Procedures for Public Comment

The Notice of the Division's intent to issue a Permit authorizing the facility to construct, operate, and close, subject to the conditions within the Permit, is being sent to the **Battle Mountain Bugle** for publication. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date of public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.403 through NAC 445A.406.

E. Proposed Determination

The Division has made the tentative determination to issue the renewed Permit.

F. Proposed Limitations, Schedule of Compliance, Monitoring, Special Conditions

See Section I of the Permit.

G. Rationale for Permit Requirements

The facility is located in an area where annual evaporation is greater than annual precipitation. Therefore, it must operate under a standard of performance which authorizes no discharge except for those accumulations resulting from a storm event beyond that required by design for containment.

The primary method for identification of escaping process solution will be placed on required routine monitoring of leak detection systems as well as routinely

sampling upgradient and downgradient monitoring wells and two local springs. Specific monitoring requirements can be found in the WPCP.

H. Federal Migratory Bird Treaty Act

Under the Federal Migratory Bird Treaty Act, 16 U.S. Code 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 Code of Federal Regulations 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service is authorized to enforce the prevention of migratory bird mortalities at ponds and tailings impoundments. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g. covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by: Natasha Zittel
Date: 25 June 2018

Revision 00: Renewed/Major Modification Permit; Effective Day Month 2018