Appendix P. Operations & Maintenance Inspection Form

BLUE LEDGE MINE
INSPECTION CHECKLIST

MONTHLY INSPECTION

Month: _____, Year: _____

BLUE LEDGE MINE MONTHLY INSPECTION CHECKLIST

Month: _____, Year: _____

Blue Ledge Mine Removal Project
Siskiyou County, California
Operation and Maintenance Period

NOTE: All photos included in this checklist were taken on date: _____
Refer to Figures P-1 through P-8 for O&M Inspection

Repository

1. Inspect the silt fence, wattles, and other SWPPP controls at the repository and repository stockpile area (See Figure P-2). Do SWPPP controls require repair or replacement?

☐ Yes*
☐ No

**If yes, repair or replace damaged components and make recommendations to reduce future damage. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of SWPPP controls and items requiring repair (if any)]

2. Inspect repository cover soil. Is there evidence of excessive or preferential erosion (See Figure P-2)?

☐ Yes*
☐ No

**If yes, notify project manager and place temporary SWPPP controls to minimize further erosion until a solution can be found. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of eroded areas]

3. Inspect the repository access road (See Figure P-2). Are there any areas of excessive erosion or other areas where the road requires repair?

☐ Yes*
☐ No

**If yes, notify the project manager of potential need for repair.*

Comments: _____

[Insert Picture of repository access road]

4. Inspect repository leachate sump tank and cap (See Figure P-2). Is the sump and cap in good condition and locked? Is there any liquid in the sump?

☐Yes
☐No*

**If no, take several pictures of damage and make repairs to fix or secure prior to leaving site (if possible). If there is liquid in the sump, measure the depth (requires a minimum 25 foot tape measure). A liquid sample may be required for profiling and disposal.*

Comments: _____

[Insert Picture of repository sump and cap]

5. Inspect anchor trench drainage pipes and the repository underdrain where they daylight (See Figure P-2). Is the screening damaged or evidence of any of the pipes being blocked?

☐Yes*
☐No

**If yes, unblock pipe and/or repair screen.*

Comments: _____

[Insert Picture of pipe (show damaged screen/blocked pipe, if any)]

6. Inspect the repository stormwater drain ditch (See Figure P-2). Is the stormwater drain ditch damaged or is their evidence of any portion of the stormwater drain ditch being blocked?

☐Yes*
☐No

**If yes, unblock ditch.*

Comments: _____

[Insert Picture of repository stormwater drain ditch (show damaged/blocked areas)]

7. Inspect plants in the repository and repository stockpile area (See Figure P-3). Does it appear the plants have been fed on by animals?

☐Yes*
☐No

**If yes, reapply Big Game Repellant to prevent further browsing. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of plants with evidence of being fed on]

8. Are there any plants which have died in the repository and repository stockpile areas (See figure P-3)?

☐ Yes*
☐ No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at the repository and repository stockpile areas are shown on Figure P-3.*
Comments: _____

[Insert Picture of dead plant(s); if none, insert picture of general plant conditions]

9. Inspect Flexterra and grass seeded areas on the repository (See Figure P-3). Are any repairs needed or invasive species present?

☐ Yes*
☐ No

If yes, identify areas for repair or pull weeds and dispose of properly.

Comments: _____

[Insert Picture of Flexterra and grass seeded areas]

North Storage Area

1. Inspect road leading to the repository and north storage area (See Figure P-2). Is there evidence of excessive erosion? Are the waterbars damaged?

☐ Yes*
☐ No

**If yes, apply temporary SWPPP controls and make recommendations for repair. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of representative road conditions, waterbar conditon]

2. Inspect the silt fence, wattles, and other SWPPP controls at the north storage area (See Figure P-4). Do SWPPP controls require repair or replacement?

☐ Yes*
☐ No

**If yes, repair or replace damaged components and make recommendations to reduce future damage. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of SWPPP controls and items requiring repair (if any)]

3. Inspect Flexterra and grass seeded areas on the north storage area (See Figure P-4). Are any repairs needed or any invasive species present?

☐ Yes*
☐ No

If yes, identify areas for repair or pull weeds and dispose of properly.

Comments: _____

[Insert Picture of Flexterra and grass seeded areas]

4. Inspect plants in the north stockpile area (See Figure P-4). Does it appear the plants have been fed on by animals?

☐ Yes*
☐ No

** If yes, reapply Big Game Repellant to prevent further browsing. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of plants with evidence of being fed on]

5. Are there any plants which have died in the north storage area (See Figure P-4)?

☐ Yes*
☐ No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at the north storage area is shown on Figure P-4.*

Comments: _____

[Insert Picture of dead plant(s); if none, insert picture of general plant conditions]

South Storage Area

1. Inspect the silt fence, waddles, and other SWPPP controls at the south staging area (See Figure P-5). Do SWPPP controls require repair or replacement?

☐ Yes*
☐ No

**If yes, repair or replace damaged components and make recommendations to reduce future damage. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments:_____

[Insert Picture of SWPPP controls and items requiring repair (if any)]

2. Inspect plants in the south staging area. Does it appear the plants have been fed on by animals (See figure P-5)?

☐ Yes*
☐ No

** If yes, reapply Big Game Repellant to prevent further browsing. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of plants with evidence of being fed on]

3. Are there any plants which have died in the south staging area (See Figure P-5)?

☐ Yes*
☐ No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at the north storage area is shown on Figure P-5.*

Comments: _____

[Insert Picture of dead plant(s); if none, insert picture of general plant conditions]

4. Inspect Flexterra and grass seeded areas along Joe Creek (See Figure P-5). Are any repairs needed or any invasive species present?

☐ Yes*
☐ No

If yes, identify areas for repair or pull weeds and dispose of properly.

Comments:_____

[Insert Picture of Flexterra and grass seeded areas]

Rock Stockpile Area

1. Inspect the silt fence, wattles, and other SWPPP controls at the rock stockpile area (See Figure P-6). Do SWPPP controls require repair or replacement?

☐Yes*
☐No

**If yes, repair or replace damaged components and make recommendations to reduce future damage. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments:_____

[Insert Picture of SWPPP controls and items requiring repair (if any)]

2. Inspect plants in the rock stock pile area (See figure P-6). Does it appear the plants have been fed on by animals?

☐Yes*
☐No

** If yes, reapply Big Game Repellant to prevent further browsing. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of plants with evidence of being fed on]

3. Are there any plants which have died in the rock stockpile area (See Figure P-6)?

☐Yes*
☐No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at the rock stock pile area is shown on Figure P-6.*

Comments: _____

[Insert Picture of dead plant(s); if none, insert picture of general plant conditions]

4. Inspect Flexterra and grass seeded areas (See Figure P-6). Are any repairs needed or any invasive species present?

☐Yes*
☐No

If yes, identify areas for repair or pull weeds and dispose of properly.

Comments:_____

Forest Service Roads and Haul Roads

1. Are there areas of Forest Service road 1060 which have experienced excessive erosion (See Figure P-2).

☐ Yes*
☐ No

**If yes, document road condition with photos and install temporary SWPPP controls to help minimize further erosion. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of eroded areas of 1060]

2. Are culverts along Forest Service road 1060 marked and draining properly?

☐ Yes
☐ No*

**If no, perform necessary maintenance or repair to culvert to return to good working condition.*

Comments: _____

[Insert Picture of culvert requiring maintenance or repair]

3. Inspect haul roads 1, 2, 3, and 4, the miner's trail parking area, and the decommissioned haul roads 2 and 4 (See Figure P-2). Are there areas of excessive erosion? Are waterbars damaged?

☐ Yes*
☐ No

**If yes, place temporary SWPPP controls and repair damaged waterbars. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of haul roads and damaged areas (if any)]

4. Inspect SWPPP controls along haul roads 1, 2, 3 and 4, the miner's trail parking area, and the decommissioned haul roads 2 and 4 (See Figure P-2). Are SWPPP controls in good condition?

☐ Yes
☐ No*

**If no, repair and/or replace SWPPP controls as necessary. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of SWPPP controls and items requiring repair (if any)]

5. Inspect areas of haul roads 1, 2, 3, and 4 the miner's trail parking area, and the decommissioned haul roads 2 and 4 (See Figure P-2). Record grass growth progress. Are there bare areas which will require reseeding?

☐ Yes*
☐ No

**If yes, reseed bare areas. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of grass growth on haul roads]

Waste Rock Pile #1

1. Inspect log wattles, straw wattles, and other SWPPP controls at the reclamation areas on waste rock pile #1 (See Figure P-7). Are all SWPPP controls in good condition?

☐ Yes*
☐ No

**If yes, repair or replace SWPPP controls as necessary. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of SWPPP controls and items requiring repair (if any)]

2. Inspect Flexterra and grass seeded areas at the reclamation areas on waste rock pile #1 (See Figure P-7). Are any repairs needed or any invasive species present?

☐ Yes*
☐ No

If yes, pull weed and dispose of properly.

Comments:_____

[Insert Picture of Flexterra and grass seeded areas]

3. Inspect plants at the reclamation areas on waste rock pile #1 (See Figure P-7). Does it appear the plants have been fed on by animals?

☐ Yes*
☐ No

** If yes, reapply Big Game Repellant to prevent further browsing. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of plants with evidence of being fed on]

4. Are there any plants at the reclamation areas which have died on waste rock pile #1 (See Figure P-7)?

☐ Yes*
☐ No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at waste rock pile #1 is shown on Figure P-7.*

Comments: _____

[Insert Picture of dead plant(s); if none, insert picture of general plant conditions]

5. Are there areas of excessive erosion on waste rock pile #1?

☐ Yes*
☐ No

**If yes, apply temporary SWPPP controls. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of waste rock areas which have eroded]

6. Inspect each Sediment/pH treatment basin at waste rock pile #1 (See figure P-7). For each basin, record the volume of sediment accumulated (as a percentage of capacity), the amount of fouled limestone (in inches), and the pH of water as listed below (if any). Record and photograph any excessive erosion in or around the sediment basin.

Sediment/pH treatment basin 1A (closest to Joe Creek):

Accumulated sediment _____

Fouled limestone _____

pH below basin A _____

Excessive erosion around the basin? ☐ Yes* ☐ No

Sediment/pH treatment basin 1B

Accumulated sediment _____

Fouled limestone _____

pH below basin B _____

Excessive erosion around the basin? ☐ Yes* ☐ No

Sediment/pH treatment basin 1C

Accumulated sediment _____

Fouled limestone _____

pH below basin C _____

Excessive erosion around the basin? ☐ Yes* ☐ No

Sediment/pH treatment basin 1D

Accumulated sediment _____

Fouled limestone _____

pH below basin D _____

Excessive erosion around the basin? ☐ Yes* ☐ No

Sediment/pH treatment basin 1E

Accumulated sediment _____

Fouled limestone _____

pH below basin E _____

Excessive erosion around the basin? ☐Yes* ☐No

Sediment/pH treatment basin 1F

Accumulated sediment _____

Fouled limestone _____

pH below basin F _____

pH above basin F _____

Excessive erosion around the basin? ☐Yes* ☐No

Waste Rock Pile #2

1. Inspect wattles, silt fence, and other SWPPP controls at the reclamation areas on waste rock pile #2 (See Figure P-8). Are all SWPPP controls in good condition?

☐Yes*
☐No

**If yes, repair or replace SWPPP controls as necessary. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of SWPPP controls and items requiring repair (if any)]

2. Inspect plants at the reclamation areas on waste rock pile #2 (See Figure P-8). Does it appear the plants have been fed on by animals?

☐Yes*
☐No

** If yes, reapply Big Game Repellant to prevent further browsing. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of plants with evidence of being fed on]

3. Are there any plants at the reclamation areas which have died on waste rock pile #2?

☐Yes*
☐No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at waste rock pile #2 is shown on Figure P-8.*

Comments: _____

[Insert Picture of dead plant(s); if none, insert picture of general plant conditions]

4. Are there areas of excessive erosion on waste rock pile #2?

☐Yes*
☐No

**If yes, apply temporary SWPPP controls. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of waste rock areas which have eroded]

5. Inspect each Sediment/pH treatment basin at waste rock pile #2 (See figure P-8). For each basin, record the volume of sediment accumulated (as a percentage of capacity), the amount of fouled limestone (in inches), and the pH of water as listed below (if any). Record and photograph any excessive erosion in or around the sediment basin.

Sediment/pH treatment basin 2A:

Accumulated sediment _____

Fouled limestone _____

pH below basin 2A _____

pH above basin 2A _____

Excessive erosion around the basin? ☐Yes* ☐No

Sediment/pH treatment basin 2B

Accumulated sediment _____

Fouled limestone _____

pH below basin 2B _____

pH above basin 2B _____

Excessive erosion around the basin? ☐Yes* ☐No

Waste Rock Pile #3

1. Inspect log wattles, straw wattles, and other SWPPP controls at the reclamation areas on waste rock pile #3 (See Figure P-8). Are all SWPPP controls in good condition?

☐ Yes*
☐ No

**If yes, repair or replace SWPPP controls as necessary. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of SWPPP controls and items requiring repair (if any)]

2. Inspect plants at the reclamation areas on waste rock pile #3 (See Figure P-8). Does it appear the plants have been fed on by animals?

☐ Yes*
☐ No

** If yes, reapply Big Game Repellant to prevent further browsing. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of plants with evidence of being fed on]

3. Are there any plants at the reclamation areas which have died on waste rock pile #3?

☐ Yes*
☐ No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at waste rock pile #3 is shown on Figure P-8.*

Comments: _____

[Insert Picture of dead plant(s); if none, insert picture of general plant conditions]

4. Are there areas of excessive erosion on waste rock pile #3?

☐ Yes*
☐ No

**If yes, apply temporary SWPPP controls. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of waste rock areas which have eroded]

5. Inspect the Sediment/pH treatment basin at waste rock pile #3 (See figure P-8). Record the volume of sediment accumulated (as a percentage of capacity), the amount of fouled limestone (in inches), and the pH of water as listed below (if any). Record and photograph any excessive erosion in or around the sediment basin.

Sediment/pH treatment basin 3:

Accumulated sediment _____

Fouled limestone _____

pH below basin 3 _____

pH above basin 3 _____

Excessive erosion around the basin? ☐Yes* ☐No

Waste Rock Pile #4

1. Inspect log wattles, straw wattles, and other SWPPP controls at the reclamation areas on waste rock pile #4 (See Figure P-7). Are all SWPPP controls in good condition?

☐ Yes*
☐ No

**If yes, repair or replace SWPPP controls as necessary. A listing of approved SWPPP controls for implementation is shown in Appendix G.*

Comments: _____

[Insert Picture of SWPPP controls and items requiring repair (if any)]

2. Inspect plants at the reclamation areas on waste rock pile #4 (See Figure P-7). Does it appear the plants have been fed on by animals?

☐ Yes*
☐ No

** If yes, reapply Big Game Repellant to prevent further browsing. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of plants with evidence of being fed on]

3. Are there any plants at the reclamation areas which have died on waste rock pile #4?

☐ Yes*
☐ No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at waste rock pile #4 is shown on Figure P-7.*

Comments: _____

[Insert Picture of dead plant(s); if none, insert picture of general plant conditions]

4. Are there areas of excessive erosion on waste rock pile #4?

☐ Yes*
☐ No

**If yes, apply temporary SWPPP controls. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G.*

Comments: _____

[Insert Picture of waste rock areas which have eroded]

5. Inspect the reinforced slope stability fabric area at waste rock pile #4 (See Figure P-7). Is the fabric in good condition?

☐ Yes
☐ No*

**If no, perform maintenance or repair.*

Comments: _____

[Insert Picture of reinforced stability fabric area]

Additional Notes (Time, temperature, wind direction, evidence of unauthorized access, condition of green gate, locks, and other observations)

_____

_____

_____

_____

_____

_____

_____
Name of Inspector(s)

Engineering/Remediation Resources Group, Inc. (ERRG)
Company

_____ _____
Signature of Inspector Date of Inspection

JOE CREEK
UNNAMED TRIBUTARY OF JOE CREEK
HR-1
SEDIMENT/pH TREATMENT BASIN 2A
APPROXIMATE PROPERTY BOUNDARY
ROCK STOCKPILE AREA
WRP-2 RECLAMATION AREA
FR500
FR600
HR-1
HR-3
HR-4
SEDIMENT/pH TREATMENT BASIN 3
PROJECT TRAILER AND PARKING AREA
HISTORIC PRESERVATION SITE
BYPASS ROAD
SEDIMENT/pH TREATMENT BASIN 2B
SEDIMENT/pH TREATMENT BASIN 1A
FOREST SERVICE ROAD 1060
SEDIMENT/pH TREATMENT BASIN 1B
SOUTH STORAGE AREA
FOREST SERVICE ROAD 1060
SEDIMENT/pH TREATMENT BASIN 1C
HR-2
HR-3
WASTE ROCK PILE 2
SEDIMENT/pH TREATMENT BASIN 1D
MINER'S TRAIL PARKING AREA
ENTRANCE/EXIT ROAD
JOE CREEK
SEDIMENT/pH TREATMENT BASIN 1E
WRP-4 RECLAMATION AREA (SEE NOTE)
SEDIMENT/pH TREATMENT BASIN 1F
A5
WRP-3 RECLAMATION AREA (SEE NOTE)
WASTE ROCK PILE 3
A6
A3
WASTE ROCK PILE 1
A1S4
A1S2
A1S3
A2S
A1S
A2
MINE SHAFT
A1N
WASTE ROCK PILE 4
WRP-1 RECLAMATION AREA
A1N2
HISTORIC PRESERVATION SITE
A4N
A4S

REPOSITORY SITE
REPOSITORY STOCKPILE AREA
ENTRANCE/ EXIT ROAD
FOREST SERVICE ROAD 400
ENTRANCE/ EXIT ROAD
FOREST SERVICE ROAD 400
FOREST SERVICE ROAD 1060
NORTH STORAGE AREA

0' 300'
INSET SCALE: 1"=300'

SOURCE: URS BLUE LEDGE MINE REMOVAL ACTION, DRAWING NO. 101, SHEET 7 OF 60, CAD FILE NO. 101, DATED: 2/2010.

LEGEND:
- FOREST SERVICE/HAUL ROAD
- DECOMMISSIONED HAUL ROAD
- PROPERTY BOUNDARY
- RECLAMATION AREA
- STREAM
- WASTE ROCK BOUNDARY REMOVAL LIMIT
- APPROXIMATE LOCATION OF ADIT
- APPROXIMATE LOCATION OF MINE SHAFT

NOTES:

WRP–3 AND WRP–4 RECLAMATION AREAS ARE ALSO THE WASTE ROCK BOUNDARY REMOVAL LIMITS.

FR = FOREST SERVICE ROAD
HR = HAUL ROAD

0' 200'
SCALE: 1"=200'

Engineering/Remediation Resources Group, Inc. 4585 Pacheco Blvd, Suite 200 Martinez, California 94553 (925) 969-0750	CLIENT: USDA FOREST SERVICE	OVERALL SITE PLAN		
ERRG	LOCATION: BLUE LEDGE MINE REMOVAL ACTION	DRAWN BY: RDB 11/18/11	CHECKED BY: JGS 11/21/11	PROJECT NO. 2010-084	FIG NO. P-1

FILE NAME: N:\graphics\2010\2010-084 USFS Blueledge Mine\N_Maps and Drawings\Final Report\Overall Site Plan.dwg LAYOUT NAME: 1 PLOTTED: Friday, January 20, 2012 – 2:20pm

REPOSITORY ACCESS ROAD

REPOSITORY STORMWATER DRAIN DITCH

LIMIT OF COVER

REPOSITORY STOCKPILE AREA

GROUNDWATER SEEP LOCATION

RIPRAP APRON

LEACHATE SUMP TANK

RIPRAP APRON

REPOSITORY ENTRANCE RAMP

ANCHOR TRENCH DRAINAGE PIPES

USDA FOREST SERVICE PROPERTY BOUNDARY

FOREST SERVICE ROAD 400

REPOSITORY UNDER DRAIN

RIPRAP APRON AT PIPE OUTLET

3940
3930
3920
3910
3900
3890

3975
3970
3965
3960
3955
3945
3905
3895
3880
3875

LEGEND:

- ACCESS ROAD
- EXISTING CONTOUR OUTSIDE OF COVER
- EXISTING FINAL GRADING COVER
- REPOSITORY STOCKPILE AREA
- STORMWATER DRAIN DITCH

SOURCES:
1. TOPOGRAPHY PROVIDED BY URS, 2010
2. PROPERTY BOUNDARY SURVEY DATA PROVIDED BY GEOMATRIX NORTHWEST, INC.
3. REPOSITORY TOPOGRAPHIC SURVEY DATA PROVIDED BY GRANITE CONSTRUCTION, INC.

N

0' 40'

SCALE: 1"=40'

ERRG
Engineering/Remediation Resources Group, Inc.
4585 Pacheco Blvd, Suite 200
Martinez, California 94553
(925) 969-0750

CLIENT: USDA FOREST SERVICE		REPOSITORY SITE PLAN			
LOCATION: BLUE LEDGE MINE REMOVAL ACTION	DRAWN BY: RDB 11/18/11	CHECKED BY: JGS 11/21/11	PROJECT NO. 2010-084	FIG. NO. P-2	

Total Plant Count

Plant Name	Repository (2.78 Acres)	Repository Stockpile (0.27 Acres)
Douglas Fir	0	300
White Pine	0	14
Big Leaf Maple	0	11
Incense Cedar	0	60
Scoulers Willow	603	58
Snowbrush	1,815	0
Deerbrush	434	0
Red-stem Ceanothus	1,260	0
Greenleaf Manzanita	420	0
Oceanspray	460	0
Total:	**4,992**	**443**

PERIMETER LOGS

REPOSITORY ACCESS ROAD

LIMIT OF COVER

REPOSITORY STOCKPILE AREA

REPOSITORY STORMWATER DRAIN DITCH

GROUNDWATER SEEP LOCATION

RIPRAP APRON

RIPRAP APRON

RIPRAP APRON

REPOSITORY ENTRANCE RAMP

LEACHATE SUMP TANK

USDA FOREST SERVICE PROPERTY BOUNDARY

ANCHOR TRENCH DRAINAGE PIPES

FOREST SERVICE ROAD 400

REPOSITORY UNDER DRAIN

RIPRAP APRON AT PIPE OUTLET

3940 3930 3920 3910 3900 3890 3880 3875 3885 3895 3905 3915 3925 3935 3945 3950 3955 3960 3970 3965

LEGEND:

- ACCESS ROAD
- EXISTING CONTOUR OUTSIDE OF COVER
- EXISTING FINAL GRADING COVER
- STORMWATER DRAIN DITCH
- FLEXTERRA AND GRASS SEED
- SHRUBS
- SHRUBS AND TREES

SOURCES:
1. TOPOGRAPHY PROVIDED BY URS, 2010
2. PROPERTY BOUNDARY SURVEY DATA PROVIDED BY GEOMATRIX NORTHWEST, INC.
3. REPOSITORY TOPOGRAPHIC SURVEY DATA PROVIDED BY GRANITE CONSTRUCTION, INC.

N

0' 40'

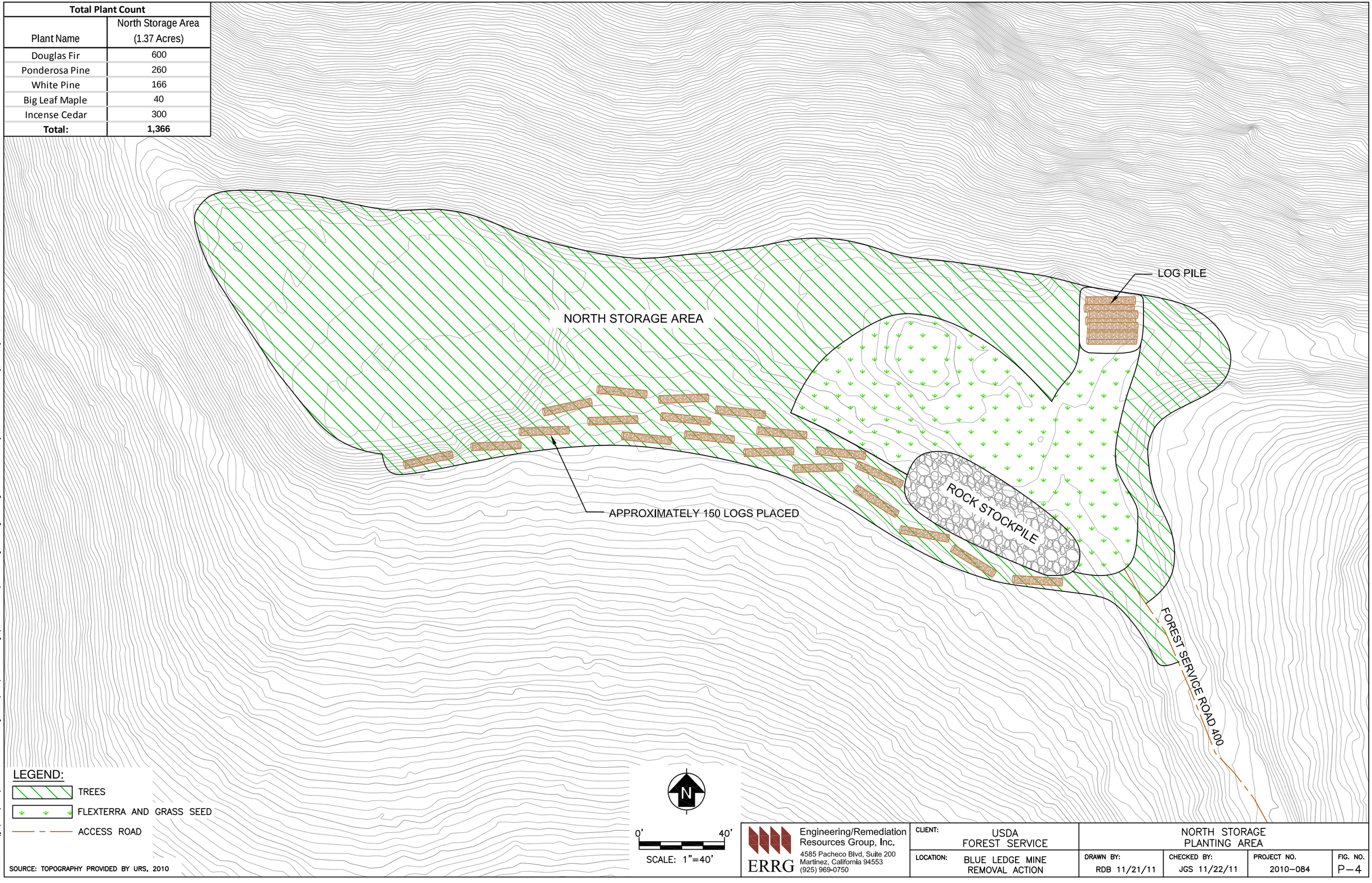
SCALE: 1"=40'

ERRG
Engineering/Remediation Resources Group, Inc.
4585 Pacheco Blvd, Suite 200
Martinez, California 94553
(925) 969-0750

CLIENT: USDA FOREST SERVICE	REPOSITORY PLANTING AREAS			
LOCATION: BLUE LEDGE MINE REMOVAL ACTION	DRAWN BY: RDB 11/23/11	CHECKED BY: JGS 11/28/11	PROJECT NO. 2010-084	FIG. NO. P-3

FILE NAME: N:\graphics\2010\2010-084 USFS Blueledge Mine\N_Maps and Drawings\O and M Plan\Repository Planting Areas.dwg LAYOUT NAME: 3 PLOTTED: Tuesday, January 17, 2012 - 10:36am

Total Plant Count	
Plant Name	North Storage Area (1.37 Acres)
Douglas Fir	600
Ponderosa Pine	260
White Pine	166
Big Leaf Maple	40
Incense Cedar	300
Total:	**1,366**



LEGEND:

- TREES
- FLEXTERRA AND GRASS SEED
- ACCESS ROAD

SOURCE: TOPOGRAPHY PROVIDED BY URS, 2010

ERRG
Engineering/Remediation Resources Group, Inc.
4585 Pacheco Blvd, Suite 200
Martinez, California 94553
(925) 969-0750

CLIENT:	USDA FOREST SERVICE	NORTH STORAGE PLANTING AREA			
LOCATION:	BLUE LEDGE MINE REMOVAL ACTION	DRAWN BY: RDB 11/21/11	CHECKED BY: JGS 11/22/11	PROJECT NO. 2010-084	FIG. NO. P-4

Total Plant Count	
Plant Name	South Storage Area (0.14 Acres)
Douglas Fir	52
Big Leaf Maple	52
White Alder	53
Scoulers Willow	60
Big-leaved Sedge	273
Total:	**490**

FOREST SERVICE ROAD 500

FOREST SERVICE ROAD 600

FORMER PROJECT TRAILER AND PARKING AREA

APPROXIMATE PROPERTY BOUNDARY

SOUTH STORAGE AREA

FOREST SERVICE ROAD 1060

JOE CREEK

LEGEND:

- FLEXTERRA AND GRASS SEED
- FOREST SERVICE ROAD
- PROPERTY BOUNDARY
- STREAM
- TREES AND SHRUBS

SOURCES:
1. TOPOGRAPHY PROVIDED BY URS, 2010.
2. PROPERTY BOUNDARY SURVEY DATA PROVIDED BY URS, 2010.

N

0' 40'

SCALE: 1"=40'

ERRG Engineering/Remediation Resources Group, Inc.
4585 Pacheco Blvd, Suite 200
Martinez, California 94553
(925) 969-0750

CLIENT: USDA FOREST SERVICE	SOUTH STORAGE PLANTING AREA			
LOCATION: BLUE LEDGE MINE REMOVAL ACTION	DRAWN BY: RDB 11/21/11	CHECKED BY: JGS 11/22/11	PROJECT NO. 2010-084	FIG. NO. P-5

FILE NAME: N:\graphics\2010\2010-084 USFS Blueledge Mine\N_Maps and Drawings\O and M Plan\South Storage Planting Area.dwg LAYOUT NAME: Layout1 PLOTTED: Tuesday, January 17, 2012 - 10:42am

Total Plant Count	
Plant Name	Rock Stockpile Area (0.27 Acres)
Douglas Fir	121
Incense Cedar	116
Total:	**237**

JOE CREEK

UNNAMED TRIBUTARY OF JOE CREEK

ROCK STOCKPILE

HR-1

HR-3

HR-1

HR-2

ACCESS ROAD 1060

HISTORIC PRESERVATION SITE

UNNAMED TRIBUTARY OF JOE CREEK

LEGEND:

HAUL ROAD/ACCESS ROAD

STREAM

TREES

SOURCE: TOPOGRAPHY PROVIDED BY URS, 2010.

N

0' 40'

SCALE: 1"=40'

ERRG Engineering/Remediation Resources Group, Inc.
4585 Pacheco Blvd, Suite 200
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(925) 969-0750

CLIENT:	USDA FOREST SERVICE	ROCK STOCKPILE PLANTING AREA			
LOCATION:	BLUE LEDGE MINE REMOVAL ACTION	DRAWN BY: RDB 11/21/11	CHECKED BY: JGS 11/22/11	PROJECT NO. 2010-084	FIG. NO. P-6

FILE NAME: N:\graphics\2010\2010-084 USFS Blueledge Mine\N_Maps and Drawings\O and M Plan\Rock Stockpile Planting Area.dwg LAYOUT NAME: Layout1 PLOTTED: Tuesday, January 17, 2012 - 10:45am

ER600

FOREST SERVICE ROAD 1060

JOE CREEK

FORMER TRAILER AND PARKING AREA

HISTORIC PRESERVATION SITE

SEDIMENT/pH TREATMENT BASIN 1A

SEDIMENT/pH TREATMENT BASIN 1B

SEDIMENT/pH TREATMENT BASIN 1C

SEDIMENT/pH TREATMENT BASIN 1D

SEDIMENT/pH TREATMENT BASIN 1E

SEDIMENT/pH TREATMENT BASIN 1F

REINFORCED SLOPE STABILITY FABRIC AREA

WRP-4 RECLAMATION AREA (SEE NOTE)

HR1

HR2

HR3

HR4

SEDIMENT/pH TREATMENT BASIN 2B

WASTE ROCK PILE 2

MINER'S TRAIL PARKING AREA

A5

WRP-1 RECLAMATION AREA

WASTE ROCK PILE 1

A1S4

A1S2

A1S3

A1S

A2S

A2

A1N

MINE SHAFT

A1N2

HISTORIC PRESERVATION SITE

WASTE ROCK PILE 4

A4N

A4S

Total Plant Count

Plant Name	WRP-1 (0.08 Acres)	WRP-4 (0.4 Acres)
Douglas Fir	56	186
Ponderosa Pine	0	150
White Pine	0	101
Big Leaf Maple	62	33
White Alder	66	75
Incense Cedar	0	128
Scoulers Willow	57	57
Snowbrush	0	38
Total:	**241**	**768**

LEGEND:

- ADIT
- FLEXTERRA AND GRASS SEED
- FOREST SERVICE ROAD/HAUL ROAD
- DECOMMISSIONED HAUL ROAD
- MINE SHAFT
- RECLAMATION AREA
- TREES AND SHRUBS
- REINFORCED SLOPE STABILITY FABRIC AREA
- WASTE ROCK BOUNDARY REMOVAL LIMITS

SOURCE: URS BLUE LEDGE MINE REMOVAL ACTION, DRAWING 101, SHEET 7 OF 60, CAD FILE NO. 101, 2/2010.

NOTE: WRP-4 RECLAMATION AREA IS ALSO THE WASTE ROCK BOUNDARY REMOVAL LIMITS.

N

0' 100'

SCALE: 1"=100'

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CLIENT: USDA FOREST SERVICE	WASTE ROCK PILES 1 AND 4 PLANTING AREAS			
LOCATION: BLUE LEDGE MINE REMOVAL ACTION	DRAWN BY: RDB 11/21/11	CHECKED BY: JGS 11/22/11	PROJECT NO. 2010-084	FIG. NO. P-7

FILE NAME: N:\graphics\2010\2010-084 USFS Blueledge Mine\N_Maps and Drawings\O and M Plan\Waste Rock Piles 1 and 4 Planting Areas.dwg LAYOUT NAME: 7 PLOTTED: Thursday, January 26, 2012 - 9:34am

Total Plant Count		
Plant Name	WRP-2 (0.01 Acres)	WRP-3 (0.8 Acres)
Douglas Fir	2	238
Ponderosa Pine	0	210
White Pine	0	98
Big Leaf Maple	14	129
White Alder	2	64
Incense Cedar	0	179
Scoulers Willow	6	149
Total:	**24**	**1,067**

PROPERTY BOUNDARY

SEDIMENT/pH TREATMENT BASIN 2A

WRP-2 RECLAMATION AREA

SEDIMENT/pH TREATMENT BASIN 2B

SEDIMENT/pH TREATMENT BASIN 3

HR1

HR2

HR4

WASTE ROCK PILE 2

WASTE ROCK PILE 1

WASTE ROCK PILE 3

MINER'S TRAIL PARKING AREA

WRP-3 RECLAMATION AREA (SEE NOTE)

HISTORIC PRESERVATION SITE

A1N

A1S2

A1S3

A1S4

A2

A2S

A3

A5

A6

MINE SHAFT

LEGEND:

- ADIT
- FOREST SERVICE ROAD/HAUL ROAD
- DECOMMISSIONED HAUL ROAD
- MINE SHAFT
- RECLAMATION AREA
- TREES AND SHRUBS
- WASTE ROCK BOUNDARY REMOVAL LIMITS

SOURCE: URS BLUE LEDGE MINE REMOVAL ACTION, DRAWING 101, SHEET 7 OF 60, CAD FILE NO. 101, 2/2010.

NOTE: WRP-3 RECLAMATION AREA IS ALSO THE WASTE ROCK BOUNDARY REMOVAL LIMITS.

0' 100'

SCALE: 1"=100'

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CLIENT: USDA FOREST SERVICE

LOCATION: BLUE LEDGE MINE REMOVAL ACTION

WASTE ROCK PILES 2 AND 3 PLANTING AREAS

DRAWN BY:	CHECKED BY:	PROJECT NO.	FIG. NO.
RDB 11/21/11	JGS 11/22/11	2010-084	P-8

FILE NAME: N:\graphics\2010\2010-084 USFS Blueledge Mine\N_Maps and Drawings\O and M Plan\Waste Rock Piles 2 and 3 Planting Area.dwg LAYOUT NAME: 8 PLOTTED: Thursday, January 26, 2012 - 9:43am