PROJECT DESCRIPTION
RESERVOIR MAINTENANCE – T.12S, R.03E, SEC.4
MARCH 24, 2014

WHO

Riddle Ranches Inc. (permitee) retains a grazing permit in the Riddle Allotment of the Bruneau Field Office, BLM. The permitee proposes to cooperate with BLM in performance of specific maintenance activities at a dug-out reservoir to improve the reservoir's water holding effectiveness.

WHAT

Maintenance activities would include removing vegetation from the embankment and spillway using a loader with backhoe. Equipment would be employed to repair dams which have inadequate spillways, eroded or slumped embankments, holes in upstream and downstream faces, seepage, and inoperable discharge structures. Borrow material would be sediment collected behind the embankment or reservoir floor. All earth work would occur in areas previously disturbed by impoundment construction. In addition, bentonite (or similar clay material) would be used to line the reservoir pit floor to impede seepage of impounded surface water. Bentonite is absorbent clay consisting mostly of montmorillonite. Bentonite would be staged either on the reservoir pit floor or at the staging area depicted in Figure 1. If bentonite is staged at the staging area, the extent of material would not exceed areas previously disturbed by road construction (>0.25 acres).

WHEN

A specific date is not yet identified. Maintenance activity timing will be constrained by a combination of factors. Specific maintenance timing is dependent on equipment availability, cost, and resource issues yet to be determined.

WHERE

Maintenance work would be done at the existing reservoir located Southwest of the Southeast quarter of Section 4, Township 12 South, Range 3 East. The project overview maps depict locations of the reservoir and access routes. Figure 1 depicts the reservoir's location in relation to southern access routes. Figure 2 depicts the same reservoir in relation to northern access routes. Equipment operators could access the reservoir from either the northern, or the southern routes. Figure 3 provides a detailed map of the maintenance area itself.

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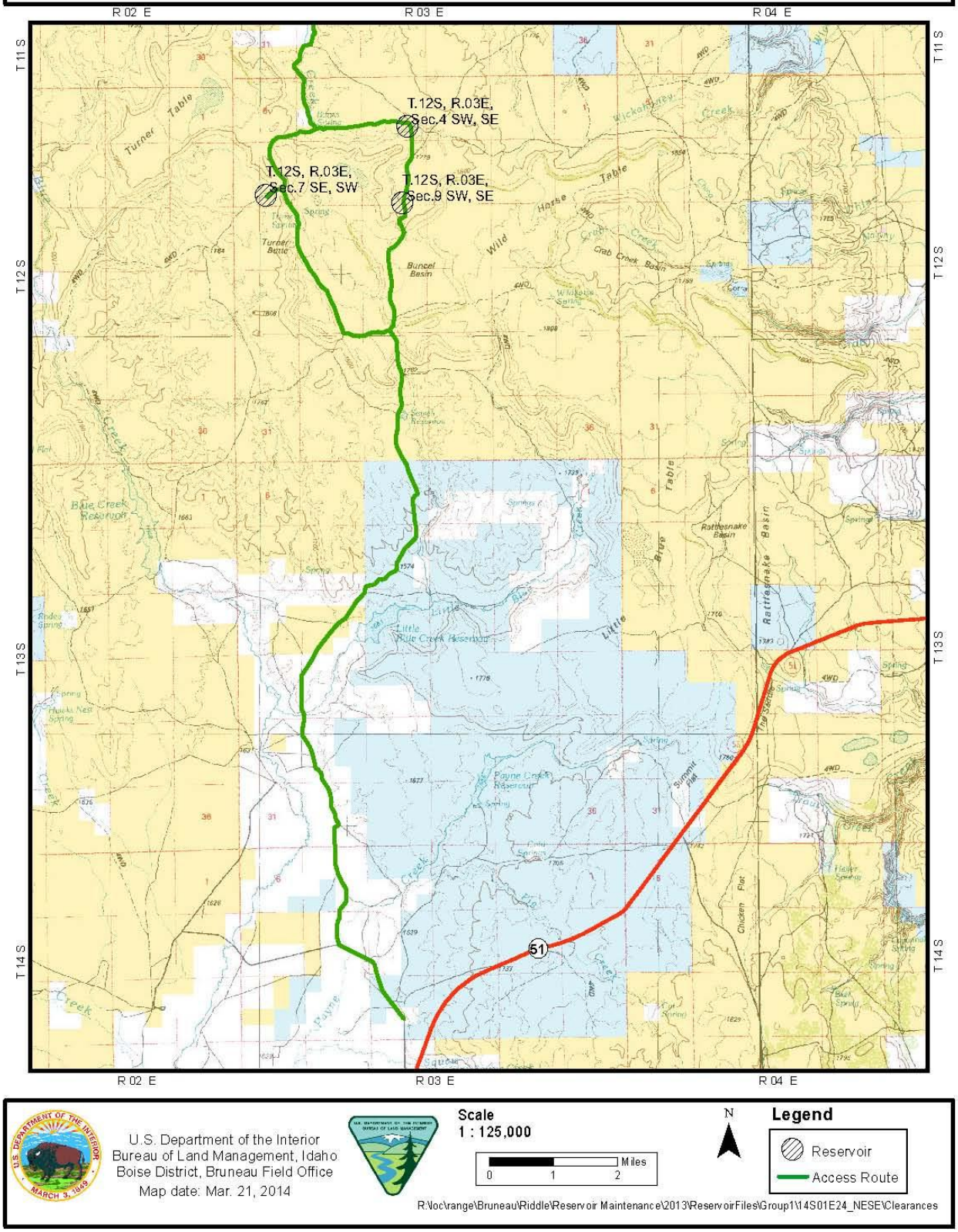
PROJECT DESCRIPTION
RESERVOIR MAINTENANCE – T.12S, R.03E, SEC.4
MARCH 24, 2014

Figure 1. Reservoir Maintenance Location and Access Overview Southern Route



PROJECT DESCRIPTION
RESERVOIR MAINTENANCE – T.12S, R.03E, SEC.4
MARCH 24, 2014

Figure 2. Reservoir Maintenance Location and Access Overview Northern Route

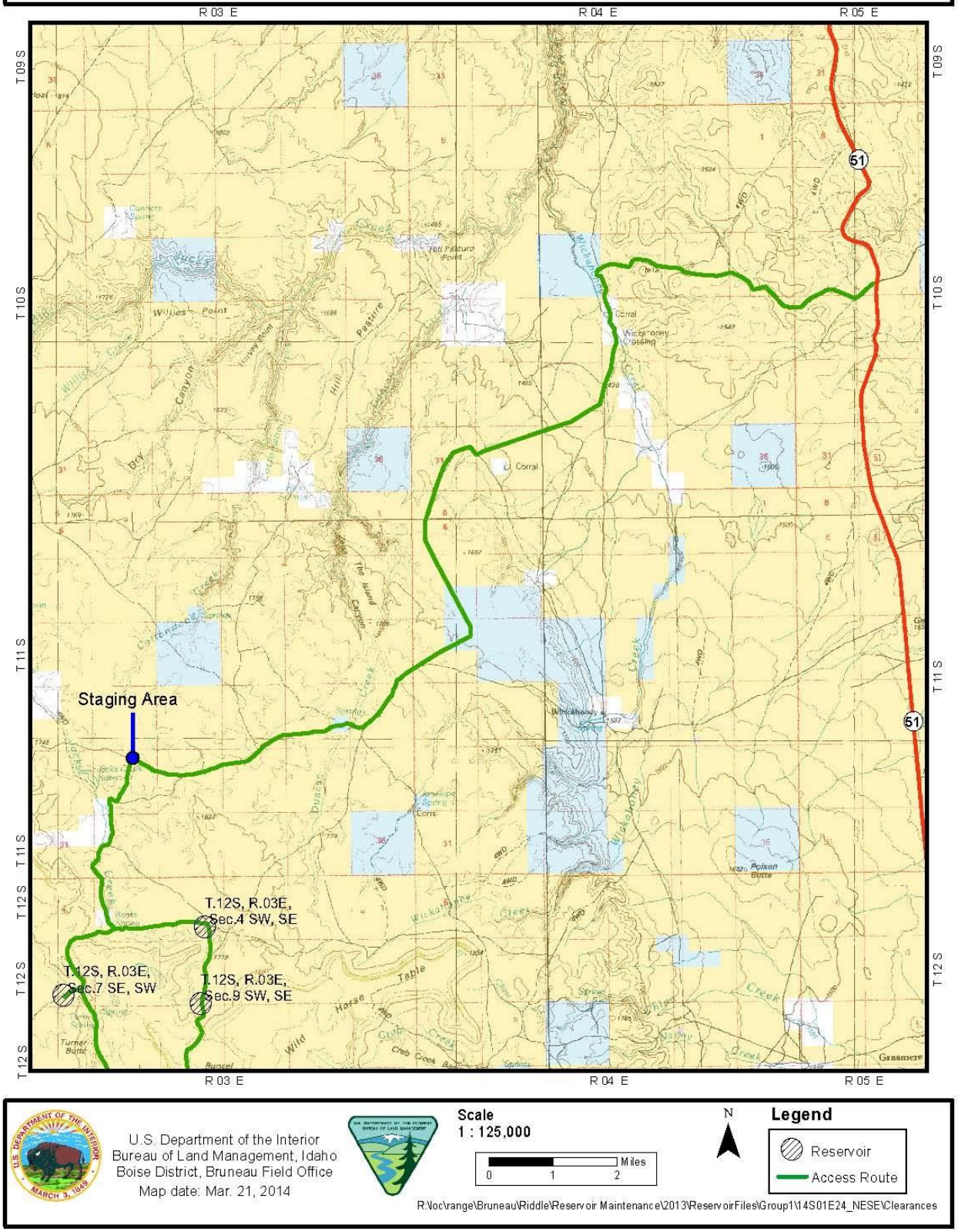


Figure 3. Reservoir 12S03E04 Maintenance Area

HOW

Work would be performed with a rubber-wheeled front loader and backhoe (Figure 4). Equipment would access the reservoir from either a southern (Figure 1) or northern (Figure 2) route. In the case of the southern route, the operator would drive the front loader. If the operator elects the northern route, the loader may be transported on a low boy trailer to the staging area (Figure 1). An operator would then drive the loader along the remainder of the northern route to the reservoir. The approximate area of surface disturbance at the reservoir maintenance site would total approximately 1.7 acres. The dimensions of the finished project would retain up to 14 acre feet per year of surface water, per the terms of the associated water right.

The following maintenance stipulations would be in effect:

1. All earth work will occur within the original area of disturbance.
2. Embankment for dam will be taken from reservoir pit whenever possible.
3. Disturbed areas will be graded to resemble existing landscape contours to minimize visual contrast.
4. Maintenance work will be restricted to periods when the soil is dry and firm enough to support vehicles without creating ruts.
5. No new roads or blading will be allowed in moving equipment to the reservoir site.

Figure 4. Example of Front Loader with Backhoe

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PROJECT DESCRIPTION
RESERVOIR MAINTENANCE – T.12S, R.03E, SEC.7
MARCH 24, 2014

WHO

Riddle Ranches Inc. (permitee) retains a grazing permit in the Riddle Allotment of the Bruneau Field Office, BLM. The permitee proposes to cooperate with BLM in performance of specific maintenance activities at a dug-out reservoir to improve the reservoir's water holding effectiveness.

WHAT

Maintenance activities would include removing vegetation from the embankment and spillway using a loader with backhoe. Equipment would be employed to repair dams which have inadequate spillways, eroded or slumped embankments, holes in upstream and downstream faces, seepage, and inoperable discharge structures. Borrow material would be sediment collected behind the embankment or reservoir floor. All earth work would occur in areas previously disturbed by impoundment construction.

WHEN

A specific date is not yet identified. Maintenance activity timing will be constrained by a combination of factors. Specific maintenance timing is dependent on equipment availability, cost, and resource issues yet to be determined.

WHERE

Maintenance work would be done at the existing reservoir located southeast of the Southwest quarter of Section 7, Township 12 South, Range 3 East. Two project overview maps depict locations of the reservoir and access routes. Figure 1 depicts the reservoir's location in relation to southern access routes. Figure 2 depicts the same reservoir in relation to northern access routes. Equipment operators could access the reservoir from either the northern, or the southern routes. Figure 3 provides a detailed map of the maintenance area itself.

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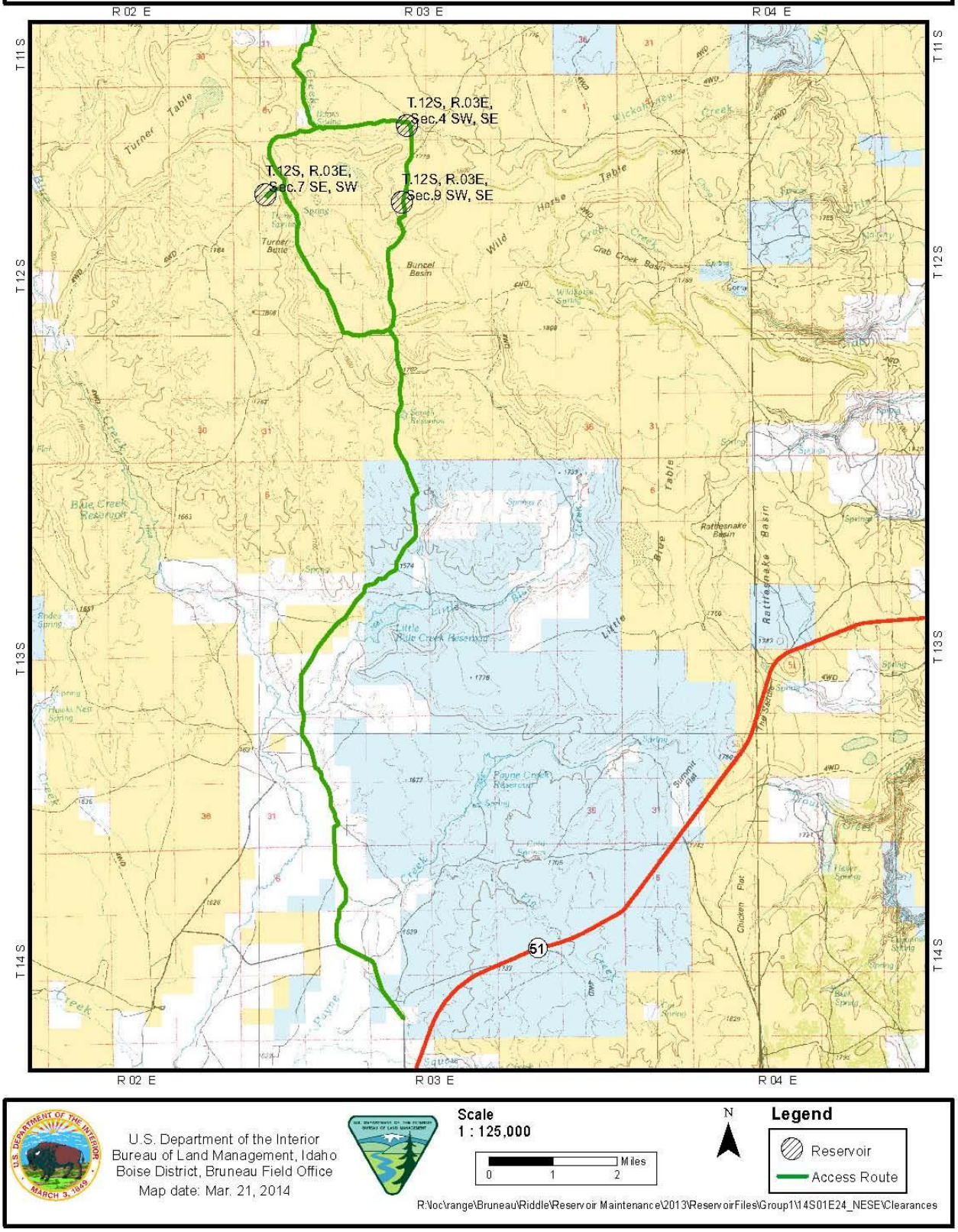
PROJECT DESCRIPTION
RESERVOIR MAINTENANCE – T.12S, R.03E, SEC.7
MARCH 24, 2014

Figure 1. Reservoir Maintenance Location and Access Overview Southern Route



PROJECT DESCRIPTION
RESERVOIR MAINTENANCE – T.12S, R.03E, SEC.7
MARCH 24, 2014

Figure 2. Reservoir Maintenance Location and Access Overview Northern Route

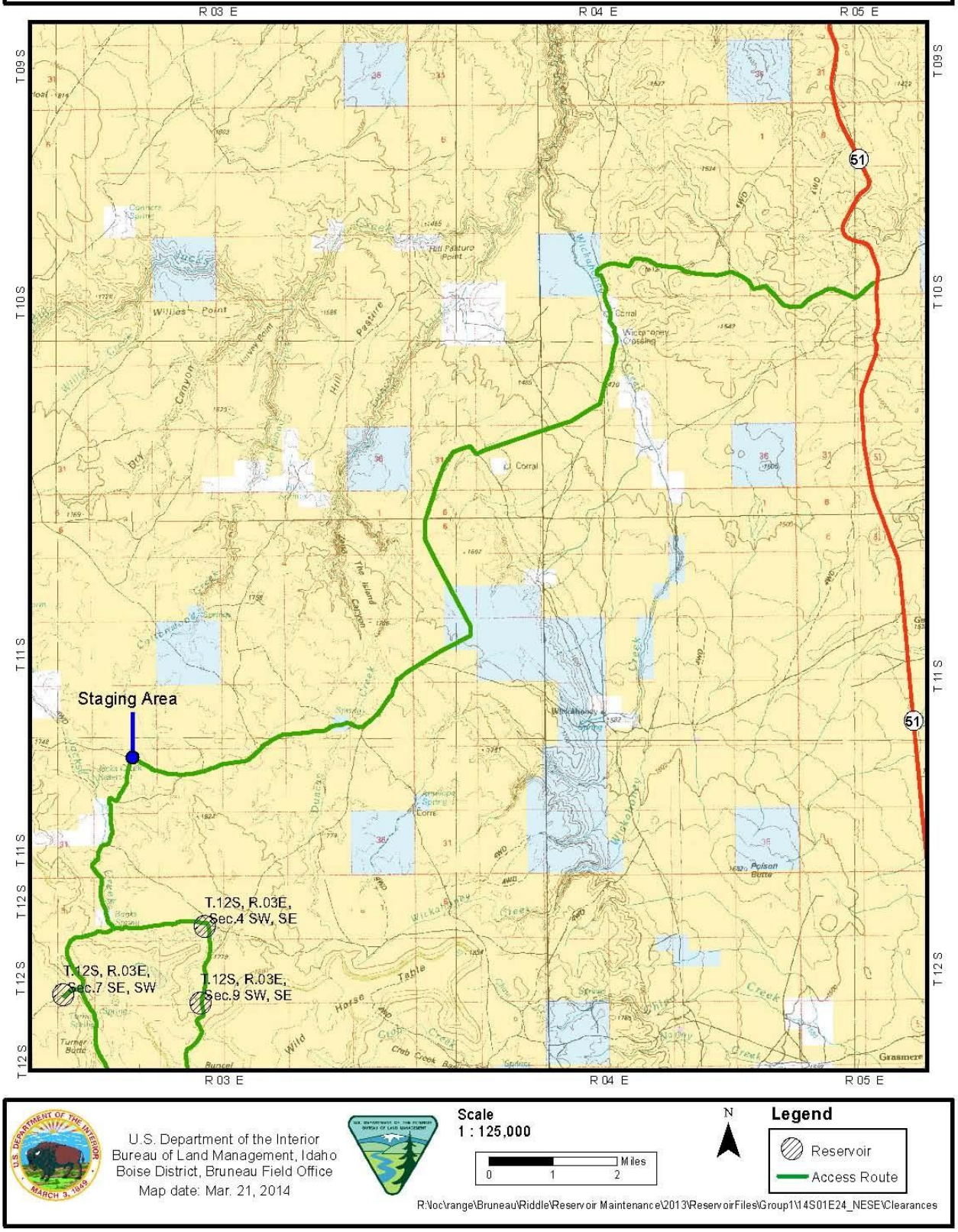


Figure 3. Reservoir 12S03E07 Maintenance Area

HOW

Work would be performed with a rubber-wheeled front loader and backhoe (Figure 4). Equipment would access the reservoir from either a southern (Figure 1) or northern (Figure 2) route. In the case of the southern route, the operator would drive the front loader. If the operator elects the northern route, the loader may be transported on a low boy trailer to the staging area (Figure 1). An operator would then drive the loader along the remainder of the northern route to the reservoir. The approximate area of surface disturbance at the reservoir maintenance site would total approximately one acre. The dimensions of the finished project would retain up to three acre-feet per year of surface water, per the terms of the associated water right.

The following maintenance stipulations would be in effect:

1. All earth work will occur within the original area of disturbance.
2. Embankment for dam will be taken from reservoir pit whenever possible.
3. Disturbed areas will be graded to resemble existing landscape contours to minimize visual contrast.
4. Maintenance work will be restricted to periods when the soil is dry and firm enough to support vehicles without creating ruts.
5. No new roads or blading will be allowed in moving equipment to the reservoir site.

Figure 4. Example of Front Loader with Backhoe

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PROJECT DESCRIPTION
RESERVOIR MAINTENANCE – T.12S, R.03E, SEC.9
MARCH 24, 2014

WHO

Riddle Ranches Inc. (permitee) retains a grazing permit in the Riddle Allotment of the Bruneau Field Office, BLM. The permitee proposes to cooperate with BLM in performance of specific maintenance activities at a dug-out reservoir to improve the reservoir's water holding effectiveness.

WHAT

Maintenance activities would include removing vegetation from the embankment and spillway using a loader with backhoe. Equipment would be employed to repair dams which have inadequate spillways, eroded or slumped embankments, holes in upstream and downstream faces, seepage, and inoperable discharge structures. Borrow material would be sediment collected behind the embankment or reservoir floor. All earth work would occur in areas previously disturbed by impoundment construction.

WHEN

A specific date is not yet identified. Maintenance activity timing will be constrained by a combination of factors. Specific maintenance timing is dependent on equipment availability, cost, and resource issues yet to be determined.

WHERE

Maintenance work would be done at the existing reservoir located in the southwest quarter of Section 9, Township 12 South, Range 3 East. Two project overview maps depict locations of the reservoir and access routes. Figure 1 depicts the reservoir's location in relation to southern access routes. Figure 2 depicts the same reservoir in relation to northern access routes. Equipment operators could access the reservoir from either the northern, or the southern routes. Figure 3 provides a detailed map of the maintenance area itself.

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Figure 1. Reservoir Maintenance Location and Access Overview Southern Route

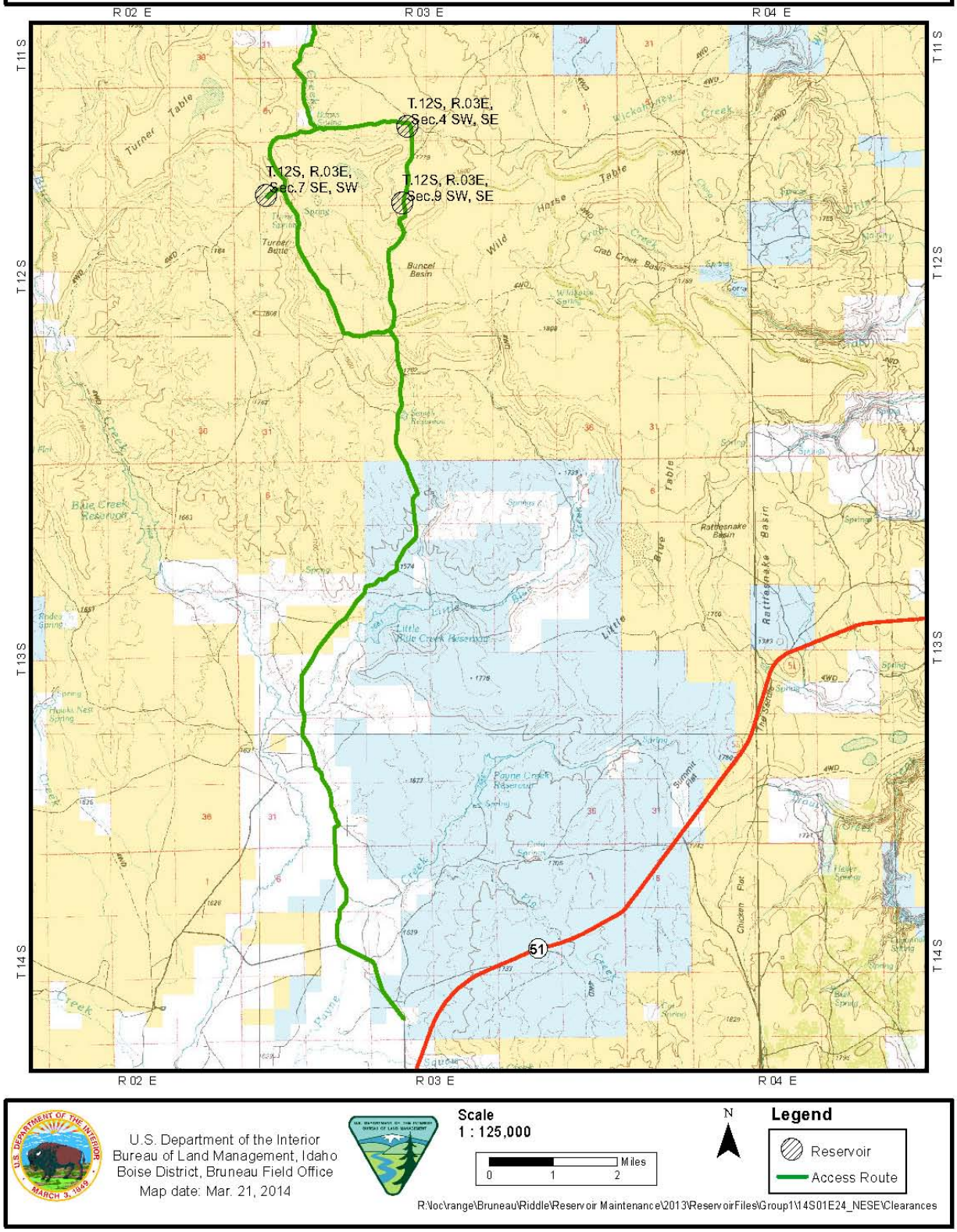


Figure 2. Reservoir Maintenance Location and Access Overview Northern Route

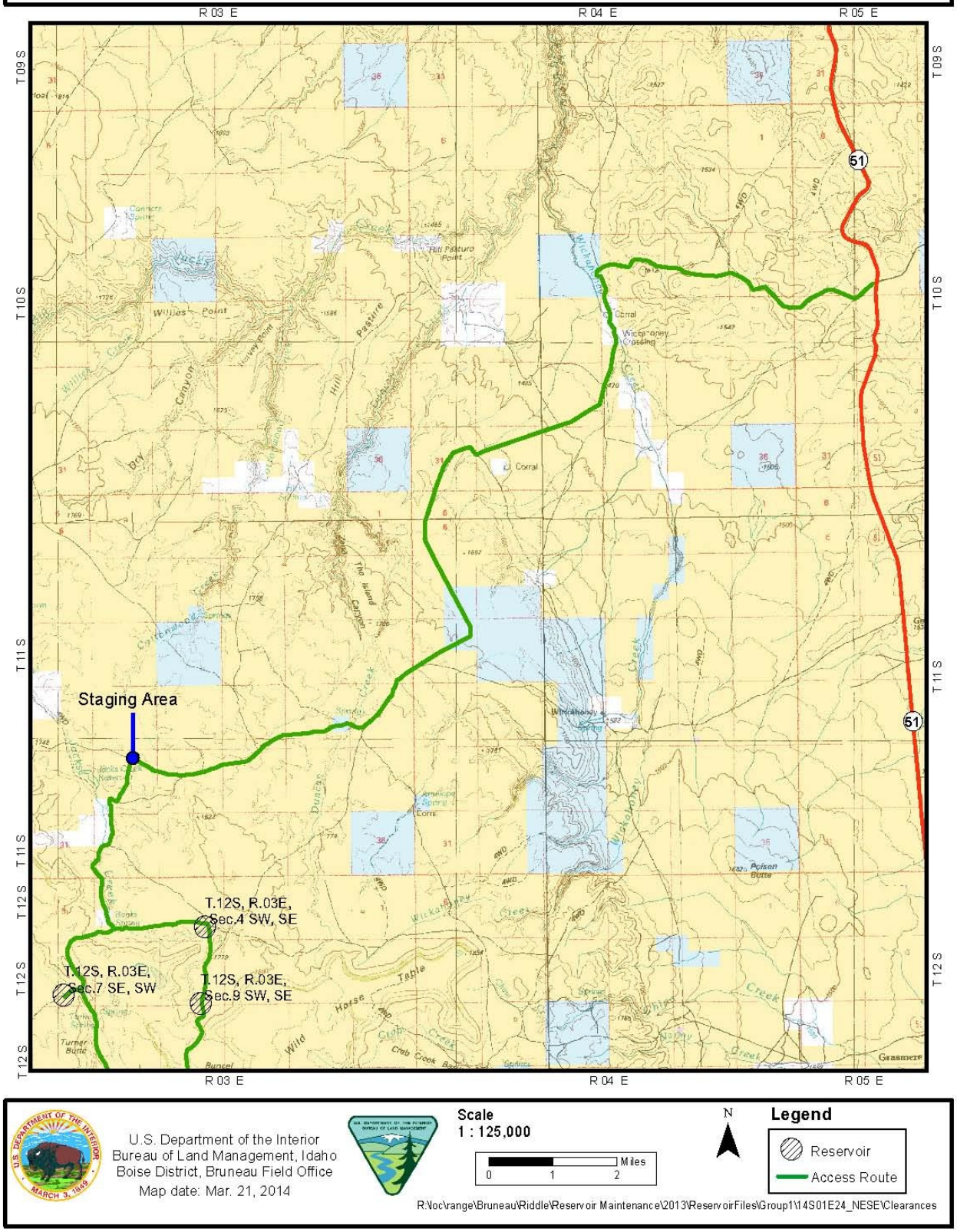
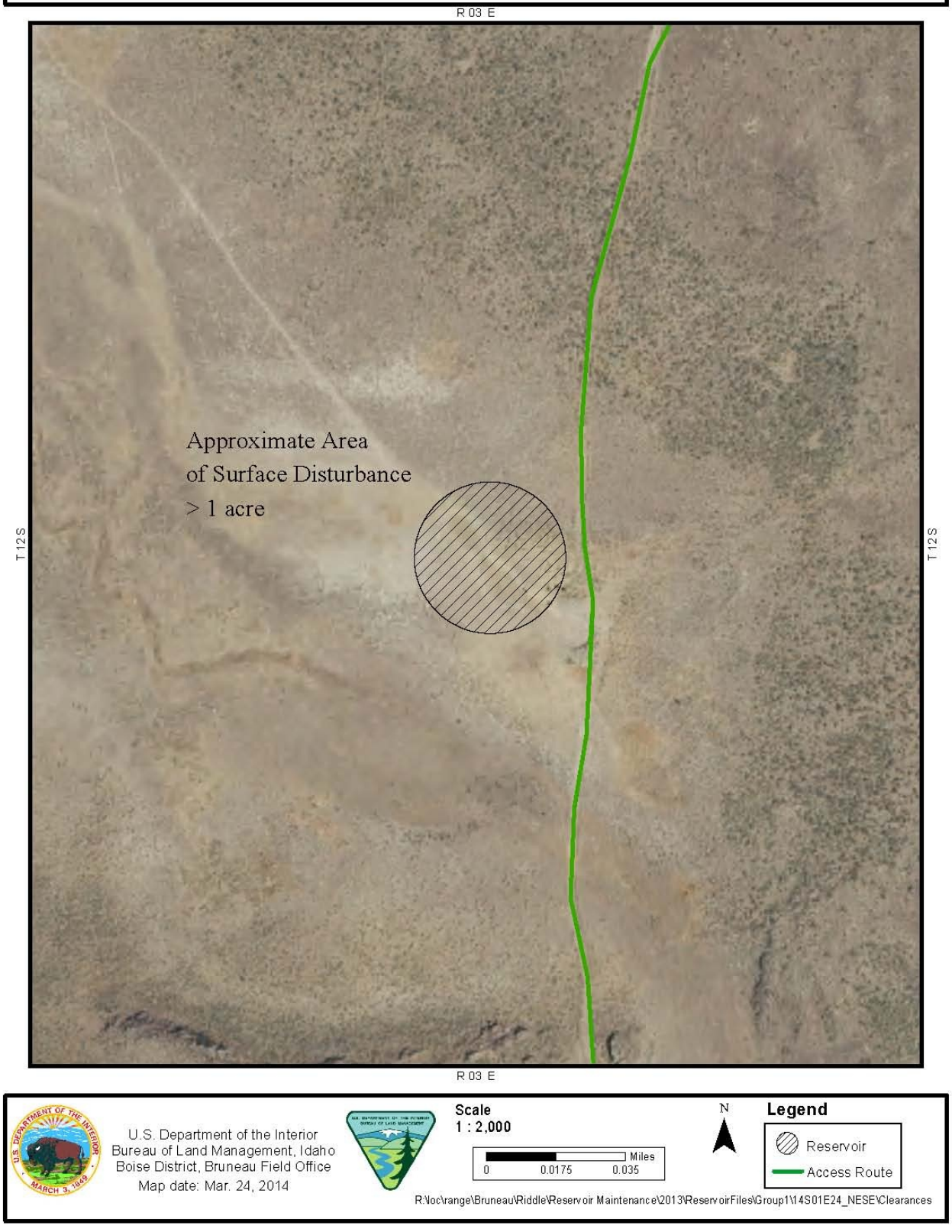


Figure 3. Reservoir 12S03E09 Maintenance Area



HOW

Work would be performed with a rubber-wheeled front loader and backhoe (Figure 4). Equipment would access the reservoir from either a southern (Figure 1) or northern (Figure 2) route. In the case of the southern route, the operator would drive the front loader. If the operator elects the northern route, the loader may be transported on a low boy trailer to the staging area (Figure 1). An operator would then drive the loader along the remainder of the northern route to the reservoir. The approximate area of surface disturbance at the reservoir maintenance site would total less than one acre. The dimensions of the finished project would retain up to 0.3 acre-feet per year of surface water, per the terms of the associated water right.

The following maintenance stipulations would be in effect:

1. All earth work will occur within the original area of disturbance.
2. Embankment for dam will be taken from reservoir pit whenever possible.
3. Disturbed areas will be graded to resemble existing landscape contours to minimize visual contrast.
4. Maintenance work will be restricted to periods when the soil is dry and firm enough to support vehicles without creating ruts.
5. No new roads or blading will be allowed in moving equipment to the reservoir site.

Figure 4. Example of Front Loader with Backhoe

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