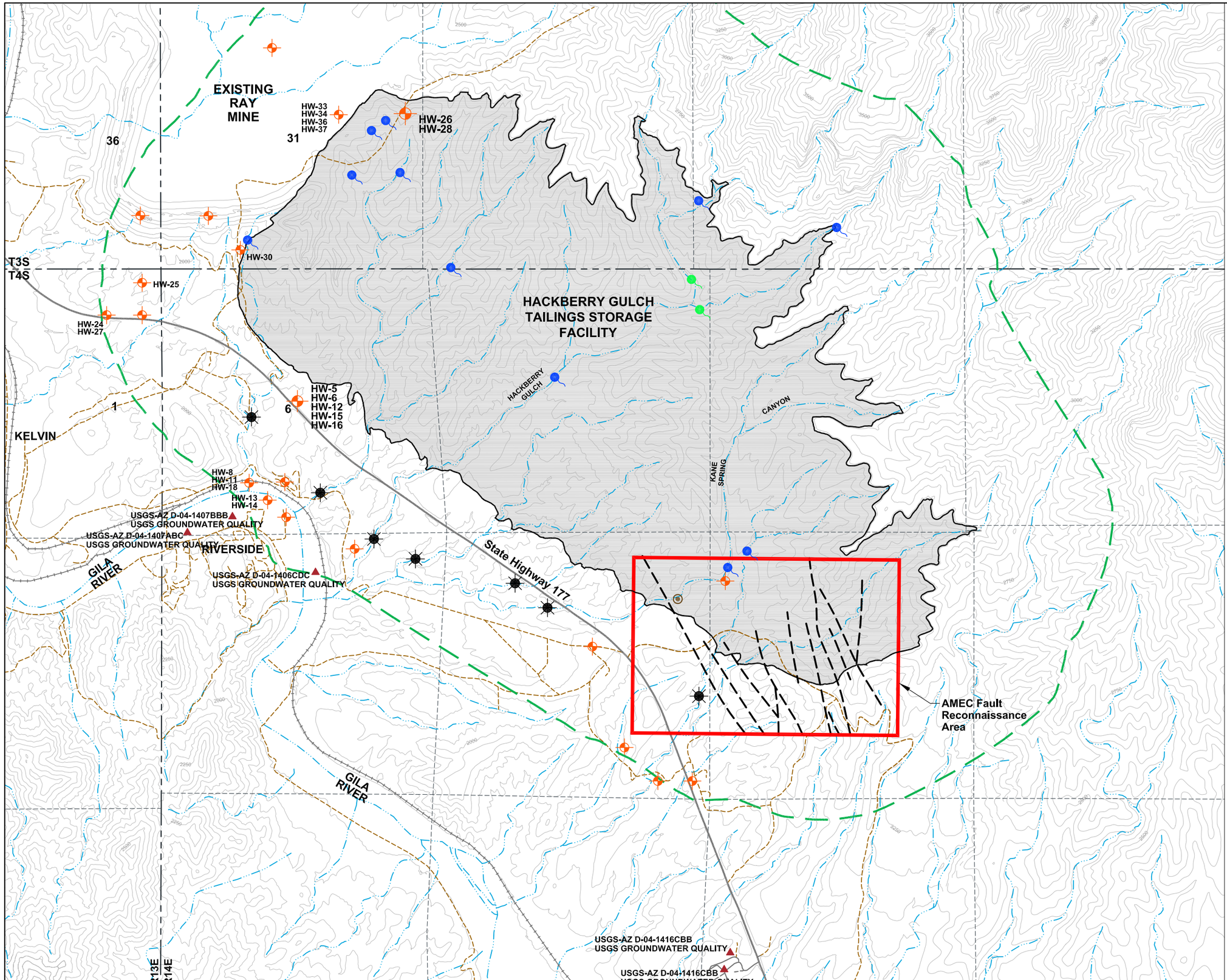
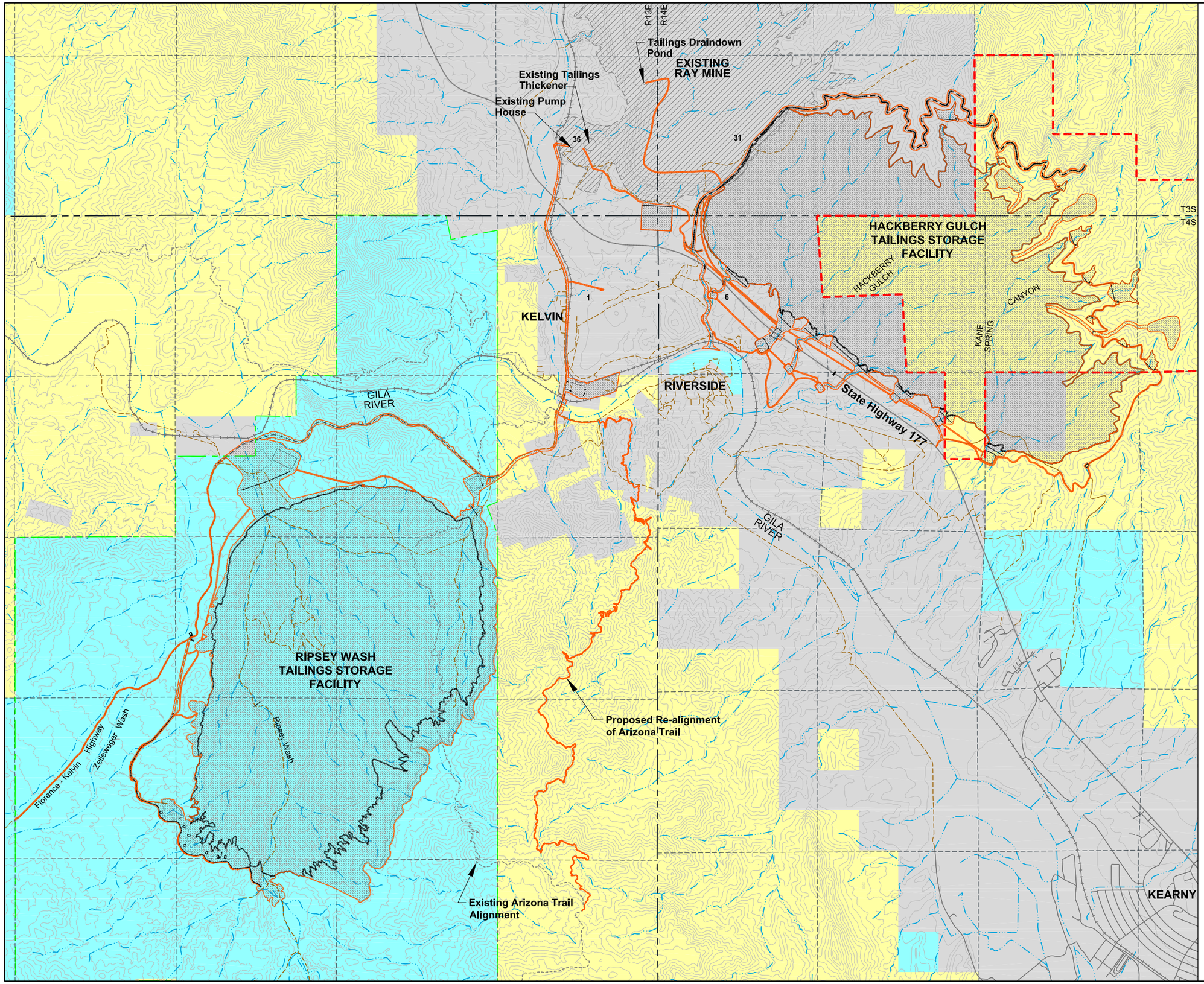


Figure 31
Groundwater Hydrology - Hackberry Gulch TSF



LEGEND:

- 3750 — EXISTING GROUND SURFACE CONTOUR EL, FEET
- EXISTING DRAINAGES
- EXISTING RAILROAD
- EXISTING ROAD
- EXISTING TRAIL/UNIMPROVED ROAD
- PROPOSED DIVERSION CHANNEL
- PROPOSED LIMITS OF SURFACE DISTURBANCE
- ASARCO RAY / BLM LAND EXCHANGE PARCEL

Note: For additional information about the Asarco Ray / BLM land exchange see website www.blm.gov/az/st/en/fo/tucson_field_office.html

DISTURBED AREA RIPSEY WASH TSF LAND OWNERSHIP

- Lands Administered by Bureau of Land Management - 9 Acres
- Private Land - 48 Acres
- State Trust Land - 2,517 Acres

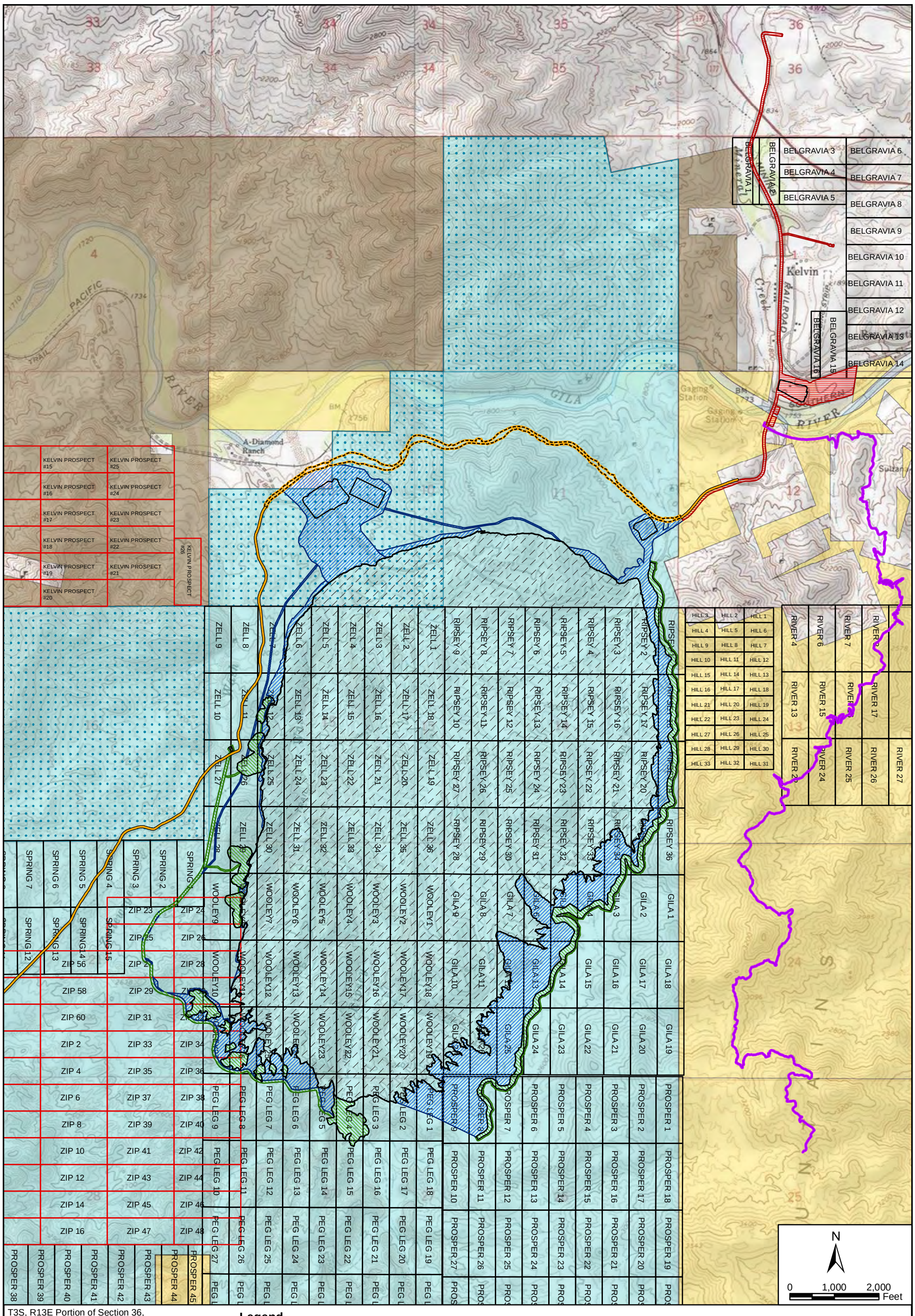
DISTURBED AREA HACKBERRY GULCH TSF LAND OWNERSHIP

- Lands Administered by Bureau of Land Management - 1,149 Acres
- Private Land - 1,141 Acres

Note: This Ownership Map will change pending a potential sale of Arizona State Trust Lands and the BLM/Ray Land Exchange with Asarco.

0 750 1500 3000
APPROXIMATE SCALE (FEET)

Figure 32
Surface Ownership



T3S, R13E Portion of Section 36,
T4S, R13E Portions of Sections 1, 10-16, and 21-27,
Pinal County, Arizona,
Grayback and Kearny USGS 7.5' Quadrangles

*Claim and land ownership boundaries provided by ASARCO

Legend

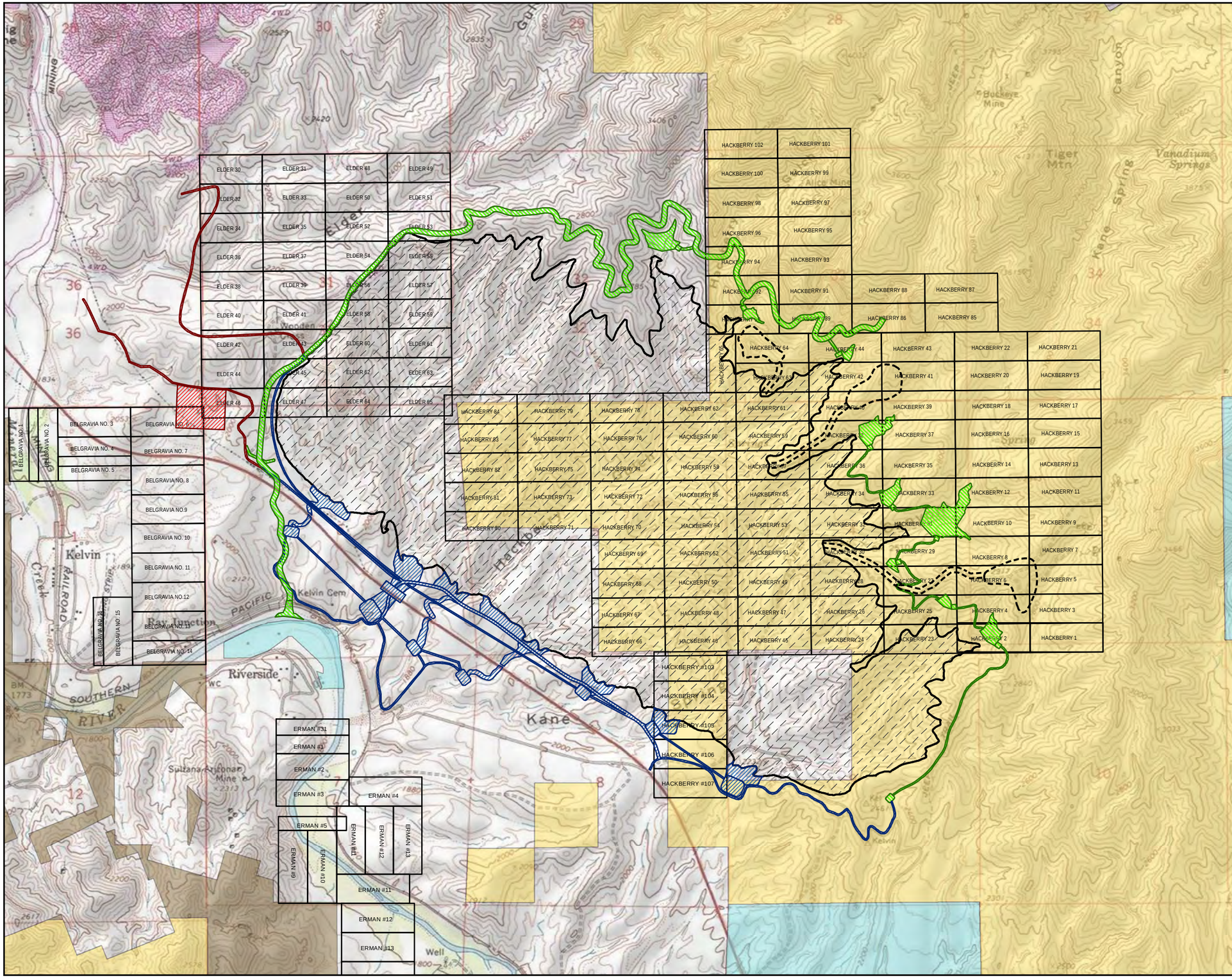
- (1) Tailings Storage Facility
- (2) Stormwater Diversion Infrastructure
- (3) Onsite TSF Infrastructure
- (4) Offsite TSF Infrastructure
- (5) Florence-Kelvin Highway Realignment
- (6) Florence-Kelvin Highway Paving
- (7) AZ Trail Realignment
- ASARCO Unpatented Claim Boundary
- Other Unpatented Claim Boundary
- ASLD Surface / BLM Mineral
- ASLD Surface & Mineral
- BLM Surface & Mineral

NOTE: It is our understanding that BLM administers the lands identified as "Bureau of Reclamation Land" along the Gila River

Figure 33

RIPSEY WASH ALTERNATIVE MINERAL ESTATE

October 30, 2015



N

2,000 0 2,000 Feet

T3S, R13E Portion of Section 36,
T3S, R14E Portions of Sections 31-33,
T4S, R13E Portion of Section 1,
T4S, R14E Portions of Sections 3-10,
Pinal County, Arizona,
Hot Tamale Peak and Kearny USGS 7.5' Quadrangles

*Claim boundaries provided by ASARCO LLC
Surface Management provided by BLM

Legend

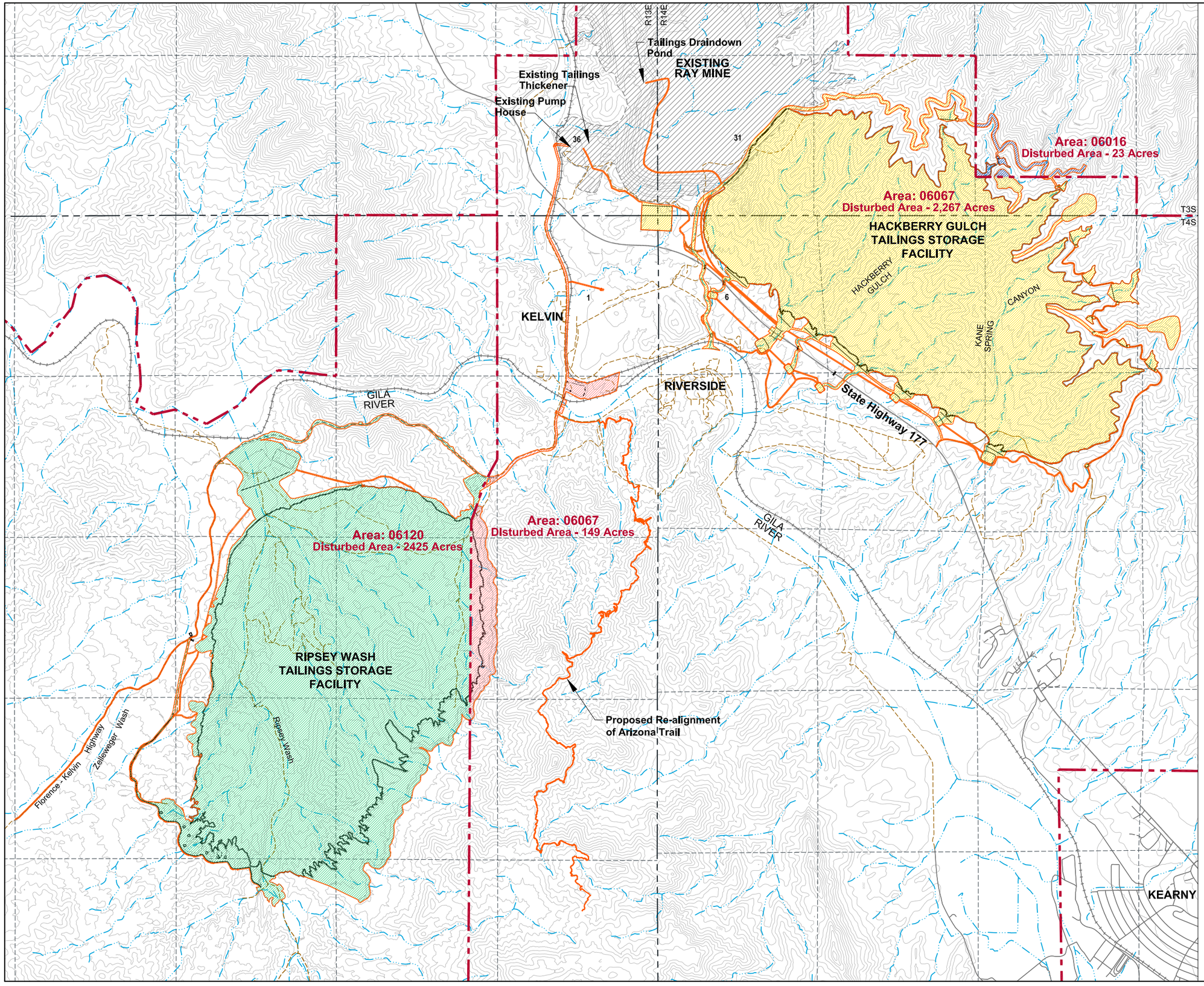
- (1) Tailings Storage Facility
- (2) Stormwater Diversion Infrastructure
- (3) Onsite TSF Infrastructure
- (4) Offsite TSF Infrastructure
- (5) Borrow Areas
- ASARCO Unpatented Claim Boundary
- Bureau of Land Management (BLM)
- Bureau of Reclamation Land
- Private Land (No Color)
- State Trust Land

NOTE: It is our understanding that BLM administers the lands identified as "Bureau of Reclamation Land" along the Gila River

Figure 34

HACKBERRY GULCH ALTERNATIVE MINERAL ESTATE

October 30, 2015



LEGEND:

- EXISTING GROUND SURFACE CONTOUR EL, FEET (3750)
- EXISTING DRAINAGES
- EXISTING RAILROAD
- EXISTING ROAD
- EXISTING TRAIL/UNIMPROVED ROAD
- PROPOSED LIMITS OF SURFACE DISTURBANCE
- GRAZING ALLOTMENT BOUNDARIES

DISTURBED AREA RIPSEY WASH TSF GRAZING ALLOTMENTS

MAP UNIT	AREA
06120	2,425 Acres
06067	149 Acres

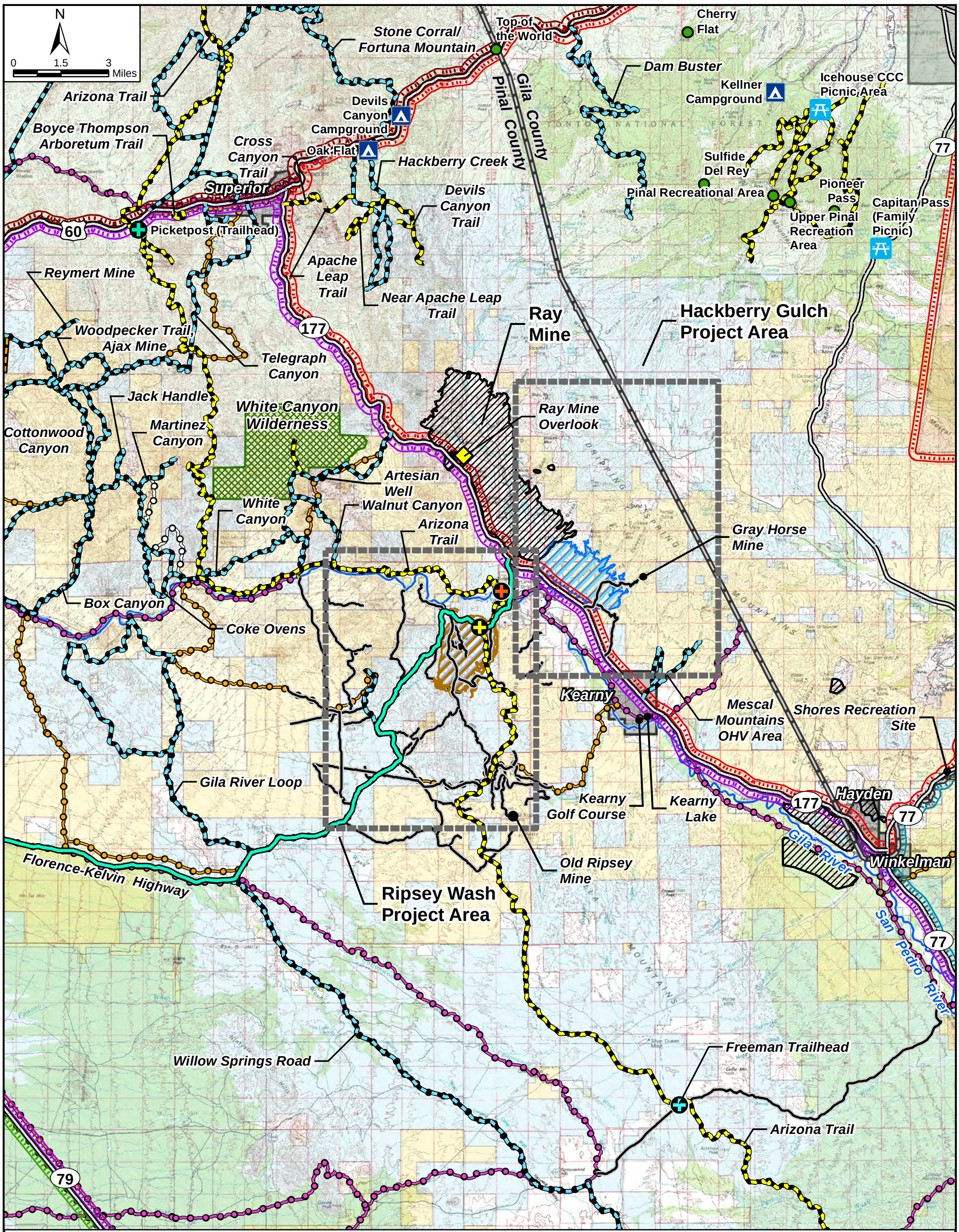
DISTURBED AREA HACKBERRY GULCH TSF GRAZING ALLOTMENTS

MAP UNIT	AREA
06067	2,267 Acres
06016	23 Acres

N

0 750 1500 3000
APPROXIMATE SCALE (FEET)

Figure 35
Grazing Allotments



LEGEND

- Campground
- Picnic
- Other Recreational Area
- Kelvin Trail Access
- Existing Trailhead Location
- Florence-Kelvin Trailhead
- Existing Known Primitive Roads Used for OHV Recreation
- Popular Hiking Trail
- Popular Offroad Trail
- Florence-Kelvin Highway
- Planned/Existing OHV County Trail
- Existing/Planned Multi-Use County Trail Corridor
- Proposed Multi-Use County Trail Corridor
- Proposed OHV County Trail Route
- Ripsey Wash Tailings Storage Facility Footprint
- Hackberry Gulch Tailings Storage Facility Footprint
- Wilderness Designation
- Existing Mining Disturbance
- City Limits
- County Line
- Florence Military Reservation (Subject to Closure)

Game Management Unit

- 24A
- 24B
- 31
- 37A
- 37B

Surface Management

- Bureau of Land Management (BLM)
- Bureau of Reclamation Withdrawal
- Indian Lands
- Private Land (No Color)
- State Trust Land
- US Forest Service (USFS)

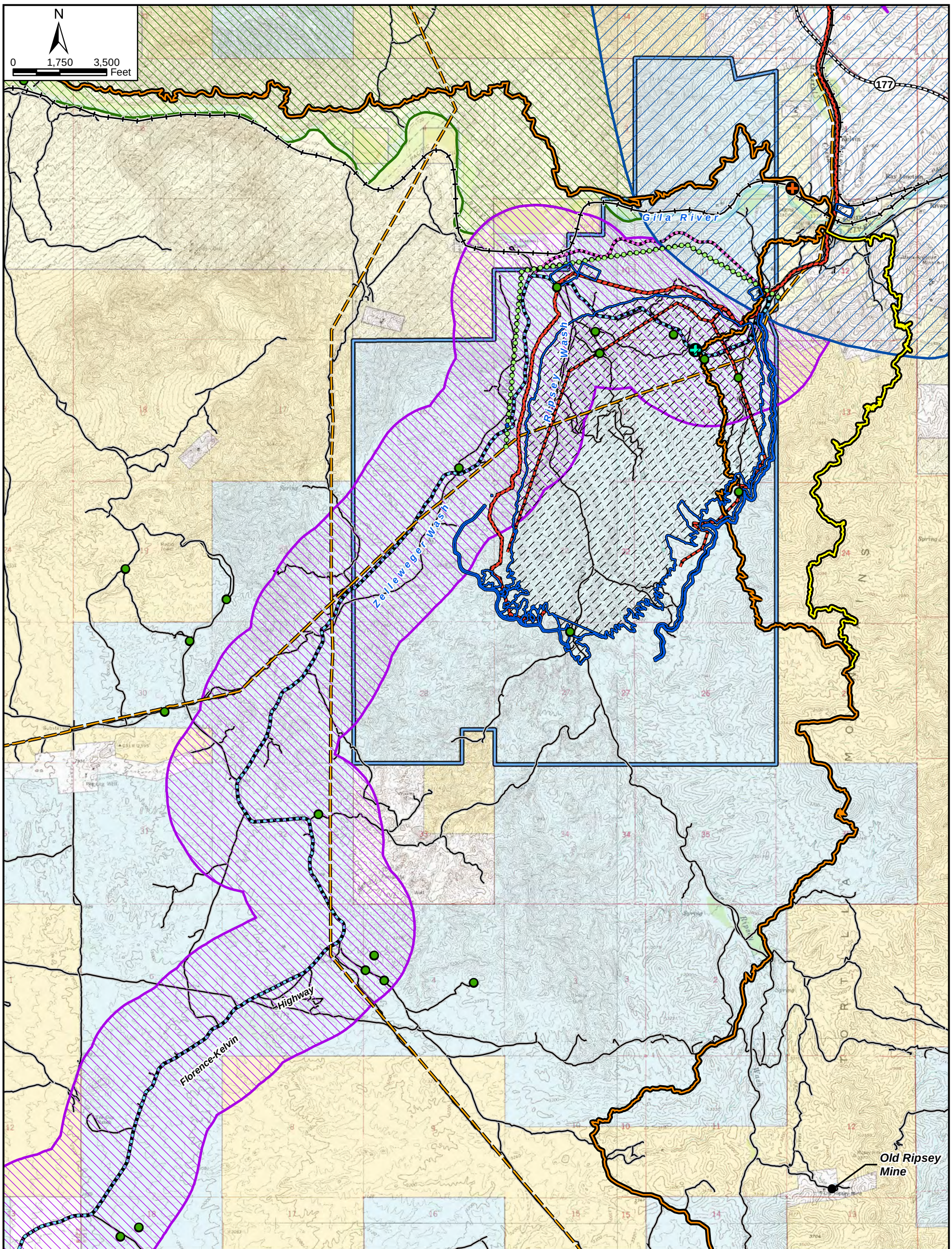
Data Source:

-Project Design: AMEC Environment & Infrastructure Inc.
-Tonto National Forest administrative boundary, Superstition -Wilderness designation, hiking trails, campgrounds, fishing, picnic areas, springs, trailheads and other recreational sites: -Tonto National Forest
-White Canyon Wilderness, Needles Eye Wilderness and Aravaipa Canyon Wilderness designations: BLM
-Florence Military Reservation: AGFD
-DEM, Topographic Maps (ArcGIS Online): USGS
-Popular Offroad Trails: Wells & Peterson and AZLRO.org
-Popular Hiking Trails: Everytrail.com and Todshikingguide.com (hand digitized from maps provided online)
-Pinal County: Proposed and Existing County Trails
-Surface Management: BLM

Figure 36

REGIONAL RECREATION RESOURCES

October 30, 2015



LEGEND

- Ripsey Wash Tailings Storage Facility Footprint
- Proposed State Land Acquisition Area
- Existing Arizona National Scenic Trail
- Proposed Arizona National Scenic Trail Realignment Route
- Kelvin Trail Access (BLM)
- Florence-Kelvin Trailhead
- Dispersed Campsite (BLM)
- Primitive Road
- Railroad
- Existing Power Line
- Proposed Power Line Relocation
- Existing Florence-Kelvin Highway
- Florence-Kelvin Highway Realignment
- Proposed Tailings Delivery and Reclaim Water Pipelines

EXISTING BLM RECREATIONAL OPPORTUNITY SPECTRUM DESIGNATION

- Roaded Natural
- Semi-Primitive Non-Motorized
- Roaded Modified
- Semi-Primitive Motorized (Areas Not Hatched)

LAND OWNERSHIP

- Bureau of Land Management (BLM)
- Bureau of Reclamation Withdrawal
- Private Land (No Color)
- State Trust Land

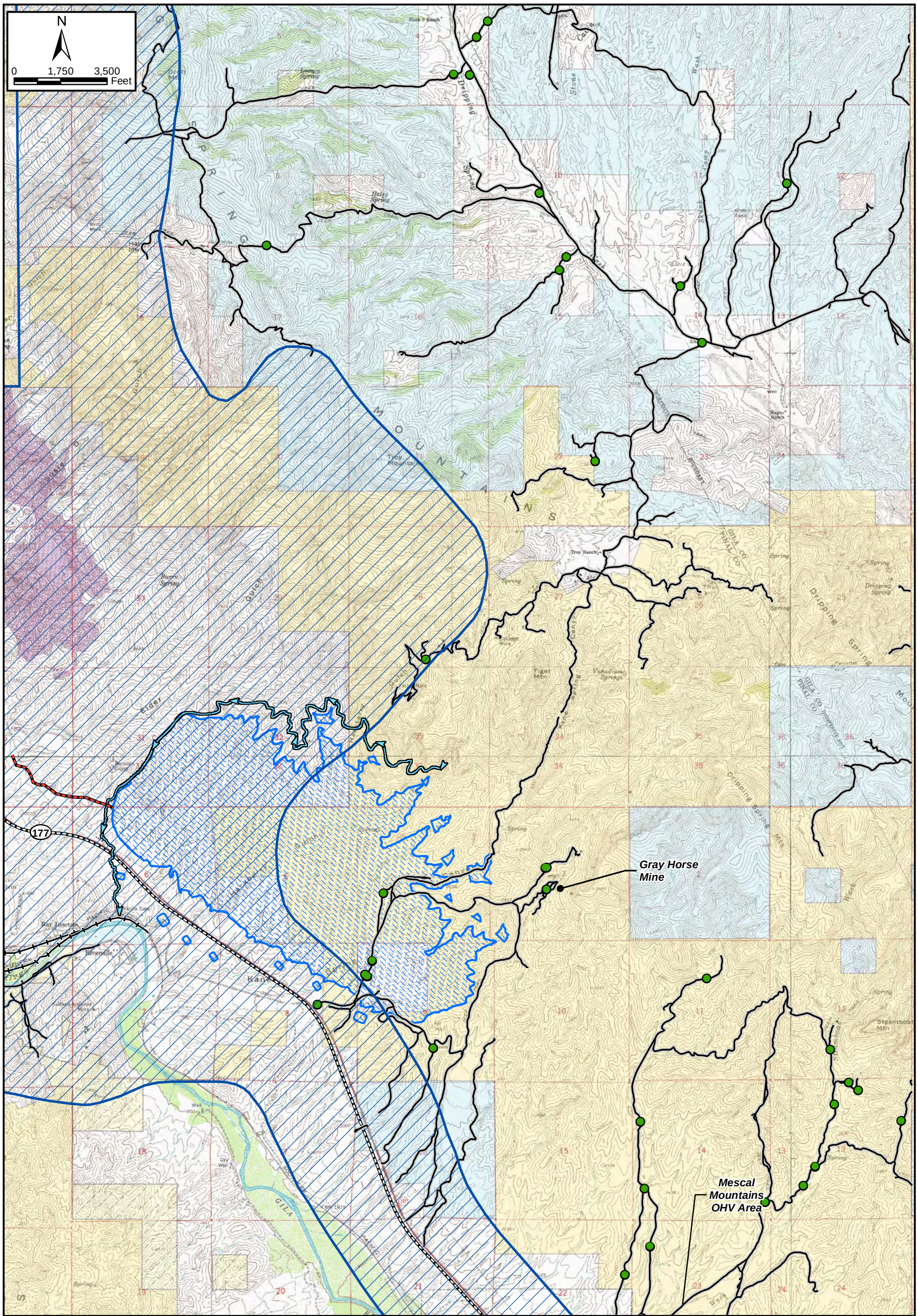
T.4S, R.13E, Portion of Sections 6-8, 12, 13, 17, 20, 21, 24, 25, 29, 32 & 33,
T.5S, R.13E, Portion of Sections 4, 5, 9 & 10
Pinal County, Arizona,
Grayback & Kearny USGS 7.5' Quadrangles

Land Ownership Provided by BLM
Primitive Road Source: Wells & Patterson, AZLRO.org, ALRIS, hand digitized from USGS 7.5'Quadrangles and ESRI Online Imagery (Microsoft, Nov-1-2010).

Figure 37

EXISTING RECREATION RESOURCES, RIPSEY WASH PROJECT AREA

October 30, 2015



T.3S, R.14E, Portion of Sections 31-33, T.4S, R.14E, 3-9,
Pinal County, Arizona,
Hot Tamale Peak & Kearny USGS 7.5' Quadrangles

Land Ownership Provided by BLM

Primitive Road Source: Wells & Patterson,
AZLRO.org, ALRIS, hand digitized from USGS 7.5'
Quadrangles and ESRI Online Imagery (Microsoft, Nov-1-2010).

LEGEND

- Dispersed Campsite (BLM)
- Railroad
- Proposed Tailings Delivery and Reclaim Water Pipelines
- Primitive Roads
- Proposed Surface Water Diversion Channel
- Hackberry Gulch Tailings Storage Facility Footprint

EXISTING BLM RECREATIONAL OPPORTUNITY SPECTRUM DESIGNATION

- Roaded Modified
- Semi-Primitive Motorized (Areas Not Hatched)

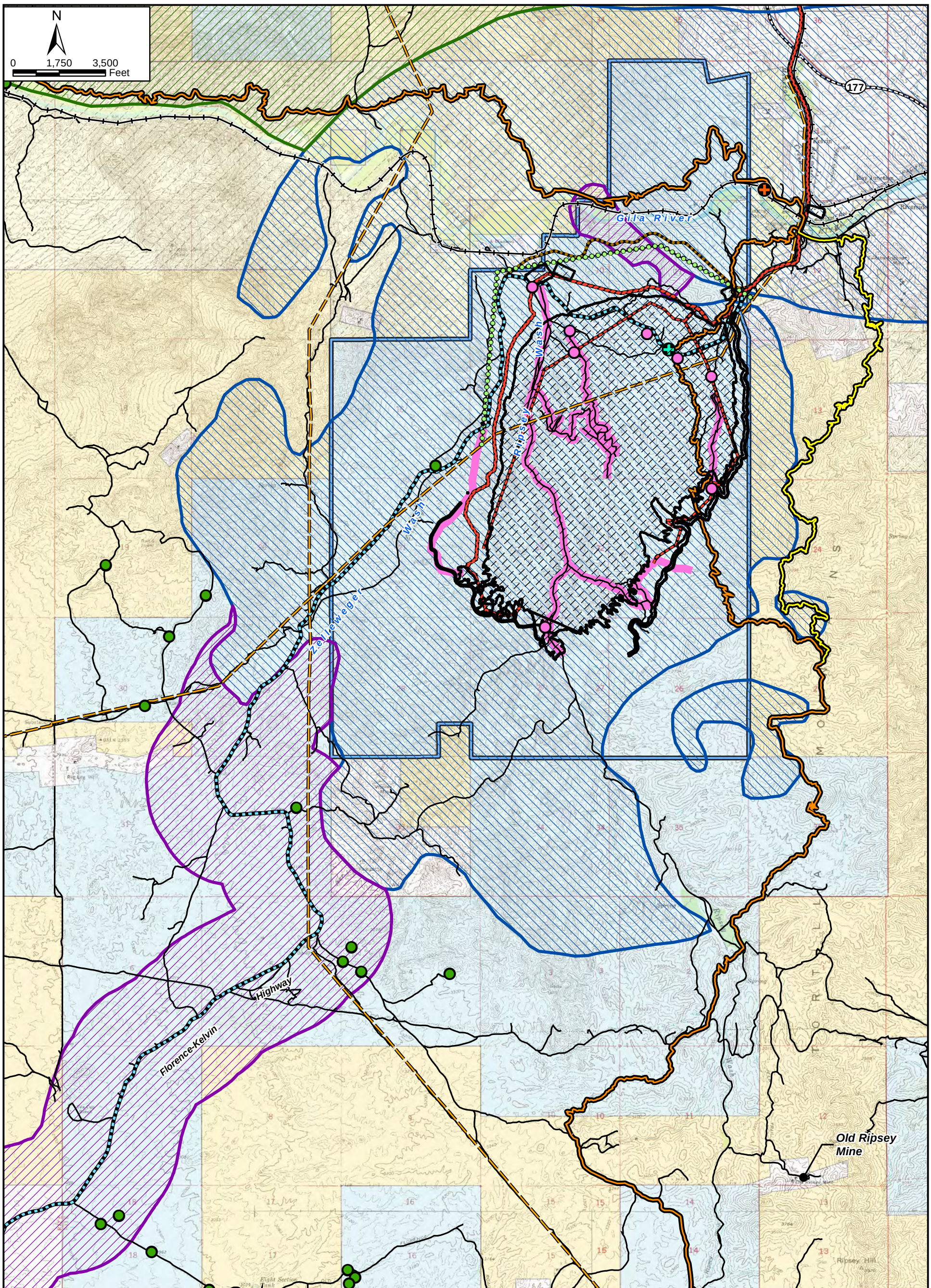
LAND OWNERSHIP

- Bureau of Land Management (BLM)
- Bureau of Reclamation Withdrawal
- Private Land (No Color)
- State Trust Land

Figure 38

EXISTING RECREATION RESOURCES,
HACKBERRY GULCH PROJECT AREA

October 30, 2015



LEGEND

- Ripsey Wash Tailings Storage Facility Footprint
- Proposed State Land Acquisition Area
- Existing Arizona National Scenic Trail
- Proposed Arizona National Scenic Trail Realignment Route
- Kelvin Trail Access (BLM)
- Florence-Kelvin Trailhead
- Dispersed Campsite (BLM) Remaining Open to Public
- Dispersed Campsite Closed to Public Under Ripsey Wash Alternative
- Primitive Road Remaining Open to Public
- Railroad
- Existing Power Line
- Proposed Power Line Relocation
- Existing Florence-Kelvin Highway
- Florence-Kelvin Highway Realignment
- Proposed Tailings Delivery and Reclaim Water Pipelines
- Primitive Roads Closed to Public Under Ripsey Wash Alternative

BLM RECREATIONAL OPPORTUNITY SPECTRUM DESIGNATION

- Semi-Primitive Non-Motorized
- Roaded Natural
- Roaded Modified
- Semi-Primitive Motorized (Areas Not Hatched)

LAND OWNERSHIP

- Bureau of Land Management (BLM)
- Bureau of Reclamation Withdrawal
- Private Land (No Color)
- State Trust Land

T.4S, R.13E, Portion of Sections 6-8, 12, 13, 17, 20, 21, 24, 25, 29, 32 & 33,
T.5S, R.13E, Portion of Sections 4, 5, 9 & 10
Pinal County, Arizona,
Grayback & Kearny USGS 7.5' Quadrangles

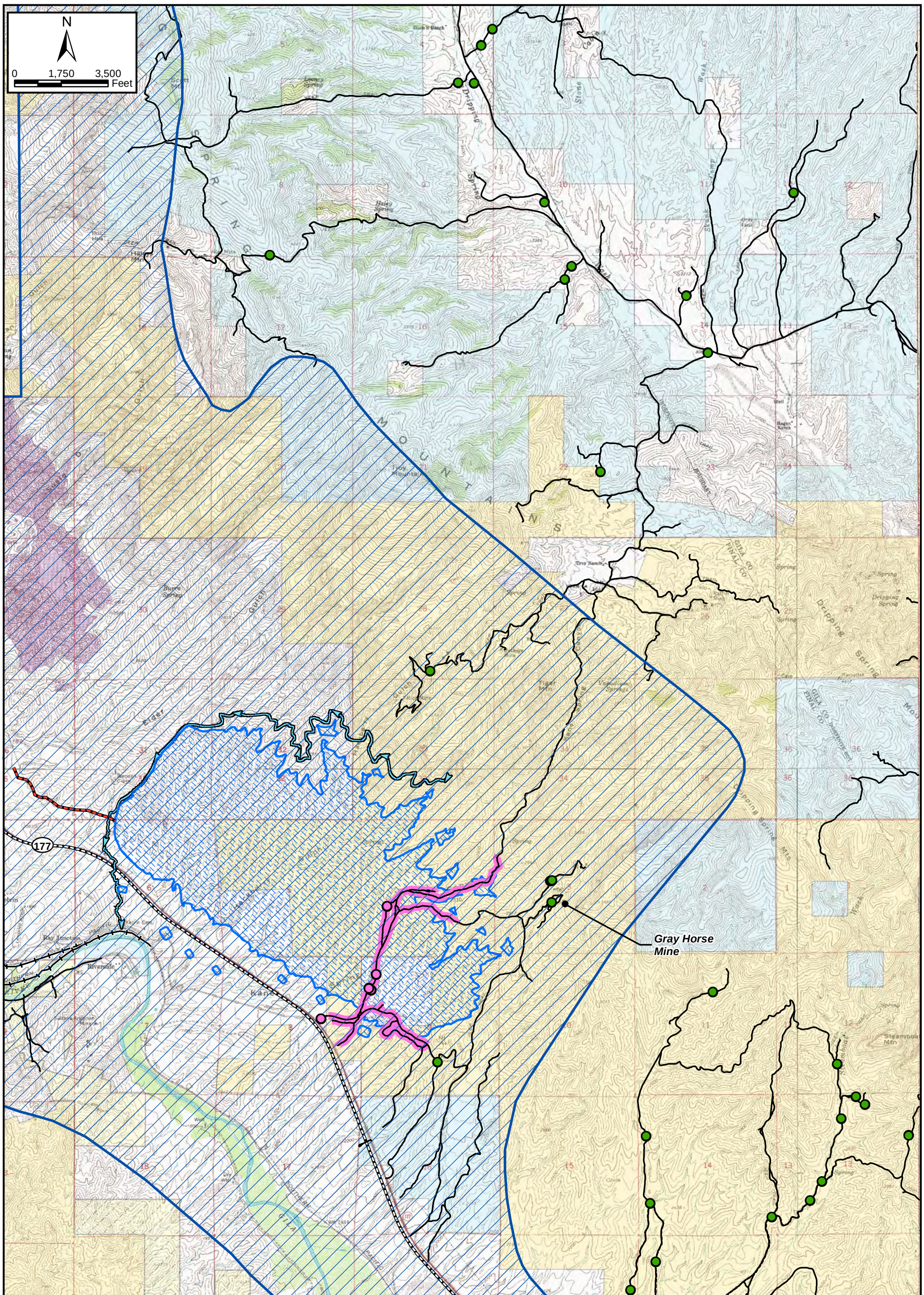
Land Ownership Provided by BLM

Primitive Road Source: Wells & Patterson, AZLRO.org, ALRIS, hand digitized from USGS 7.5'Quadrangles and ESRI Online Imagery (Microsoft, Nov-1-2010).

Figure 39

RECREATION RESOURCES, RIPSEY WASH ALTERNATIVE

October 30, 2015



LEGEND

- Dispersed Campsite (BLM)
- Dispersed Campsites Closed to Public Under Hackberry Gulch Alternative
- Railroad
- Proposed Tailings Delivery and Reclaim Water Pipelines
- Primitive Roads Remaining Open to Public
- Primitive Roads Closed to Public Under Hackberry Gulch Alternative
- Proposed Surface Water Diversion Channel
- Hackberry Gulch Tailings Storage Facility Footprint

BLM RECREATIONAL OPPORTUNITY SPECTRUM DESIGNATION

- Roaded Modified
- Semi-Primitive Motorized (Areas Not Hatched)

LAND OWNERSHIP

- Bureau of Land Management (BLM)
- Bureau of Reclamation Withdrawal
- Private Land (No Color)
- State Trust Land

T.3S, R.14E, Portion of Sections 31-33, T.4S, R.14E, 3-9,
Pinal County, Arizona,
Hot Tamale Peak & Kearny USGS 7.5' Quadrangles

Land Ownership Provided by BLM

Primitive Road Source: Wells & Patterson, AZLRO.org, ALRIS, hand digitized from USGS 7.5' Quadrangles and ESRI Online Imagery (Microsoft, Nov-1-2010).

Figure 40

RECREATION RESOURCES, HACKBERRY GULCH ALTERNATIVE

October 30, 2015