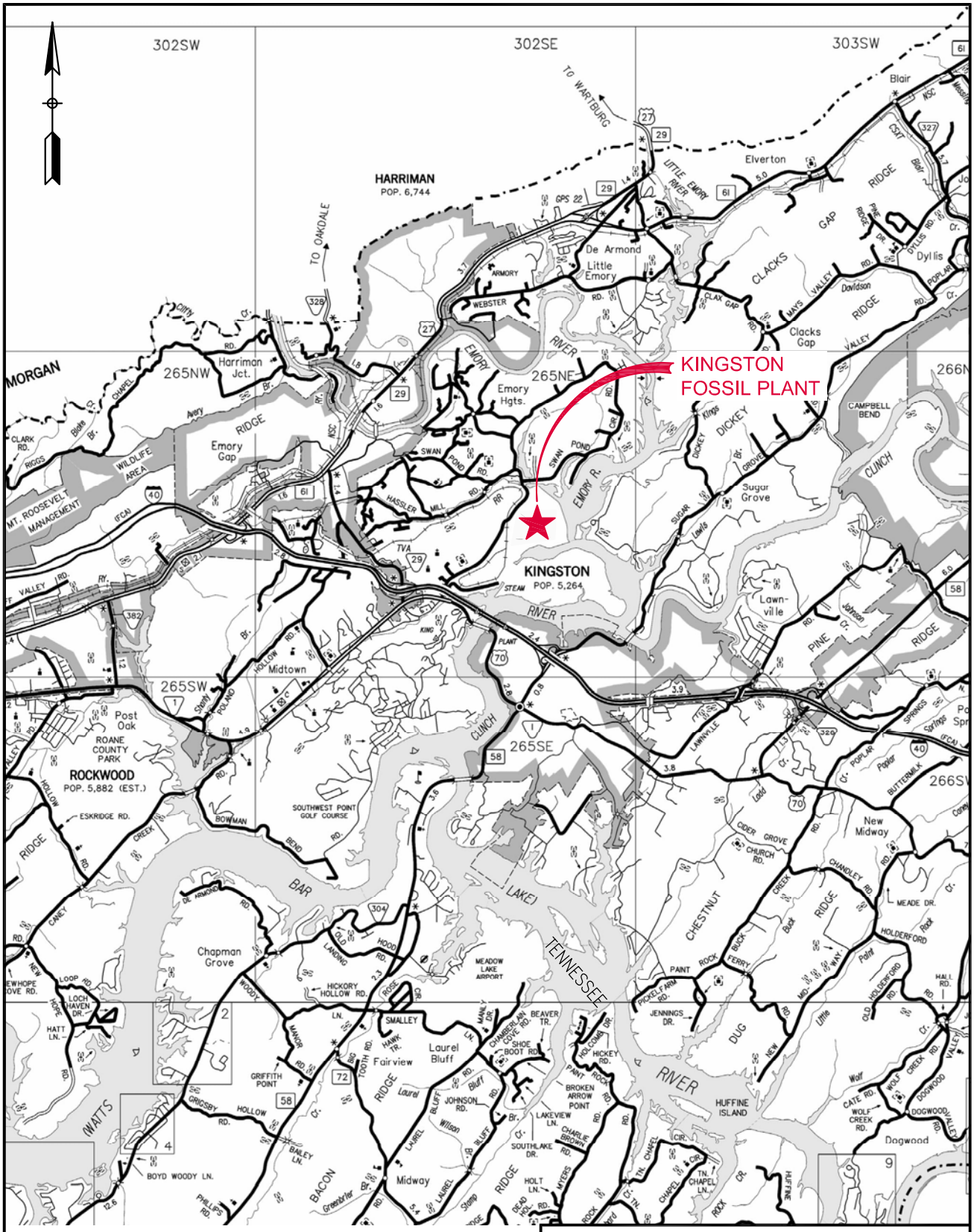


SOURCE:
GENERAL HIGHWAY MAP, ROANE COUNTY, TENNESSEE
TENNESSEE DEPARTMENT OF TRANSPORTATION, 2006

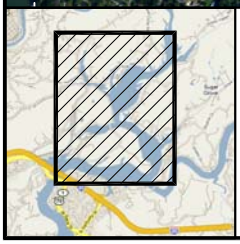
0 1 2 4
SCALE IN MILES

FIGURE 1
LOCATION OF THE KINGSTON FOSSIL PLANT

TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\020_Fig 1 Location Map.dwg Dec 29,2009 -bperatro



DATE OF PHOTO: AUG. 2009

0 1000 2000 4000

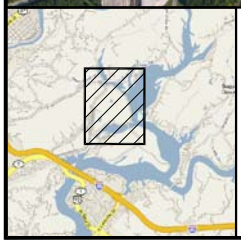
SCALE IN FEET

FIGURE 2
LOCATION OF THE SITE

TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\021_Fig 2 Location of the Site.dwg Dec 29,2009-bperatro



DATE OF PHOTO: AUG. 2009

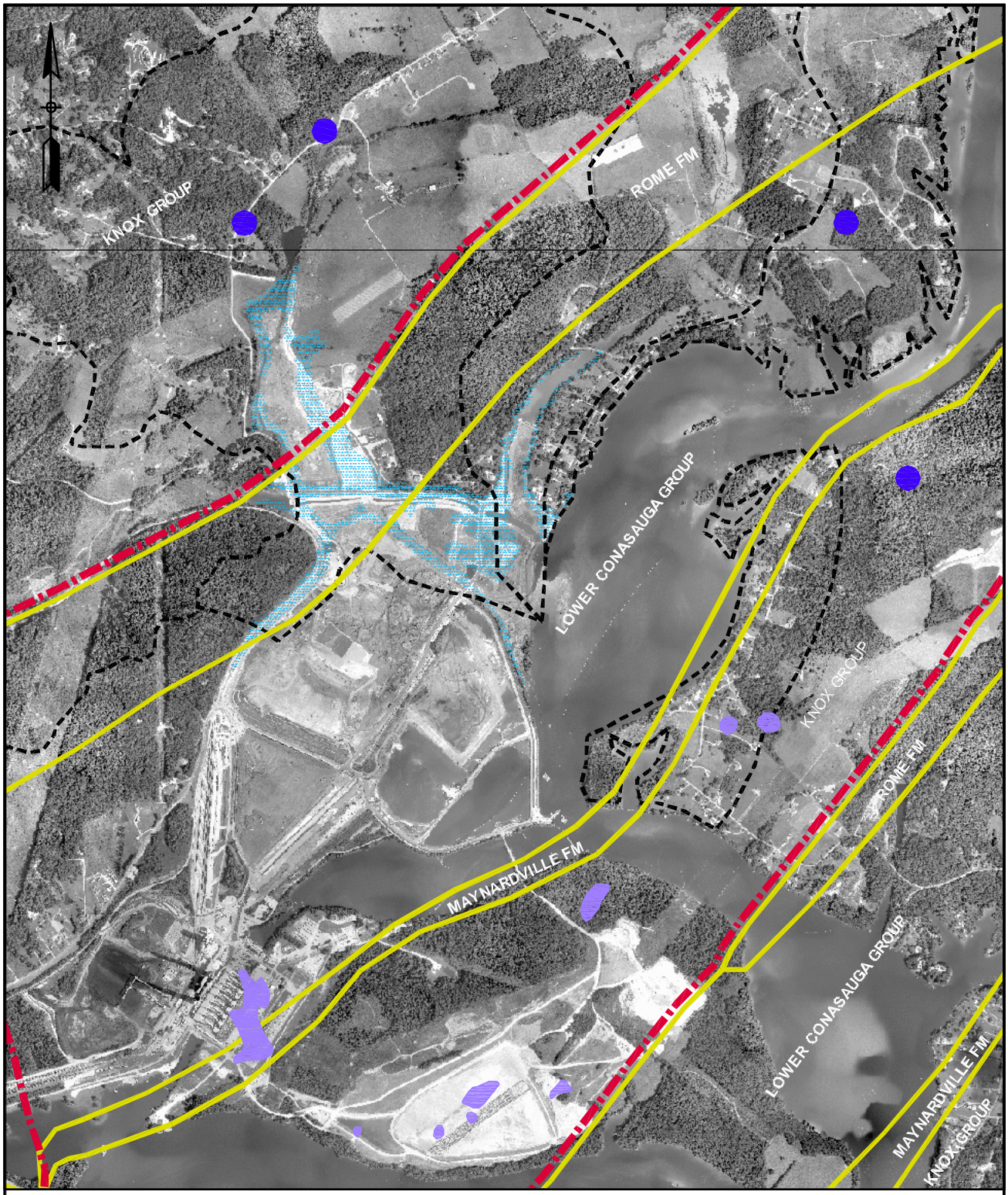
0 500 1000 2000
SCALE IN FEET

FIGURE 3
KEY FEATURES OF THE SITE

TENNESSEE VALLEY AUTHORITY

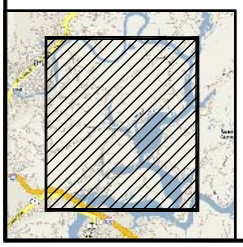
DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\022_Fig 3 Key Site Features.dwg Dec 29,2009 -bperatro



DATE OF PHOTO: AUG. 2009

0 1000 2000 4000
SCALE IN FEET



LEGEND

- SPRING
- ASH-IMPACTED LAND ABOVE WINTER POOL SHORELINE
- GEOLOGIC CONTACT
- GEOLOGIC FAULT
- SINKHOLE
- WATERSHED BOUNDARY

FIGURE 4
HYDROGEOLOGIC FEATURES OF THE KIF SITE

TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\023_Fig4 Hydrogeologic Features.dwg Jan 08,2010-bperalto

T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\024_Fig 5 CSM Groundwater Transport.dwg Dec 29,2009 -bperatro

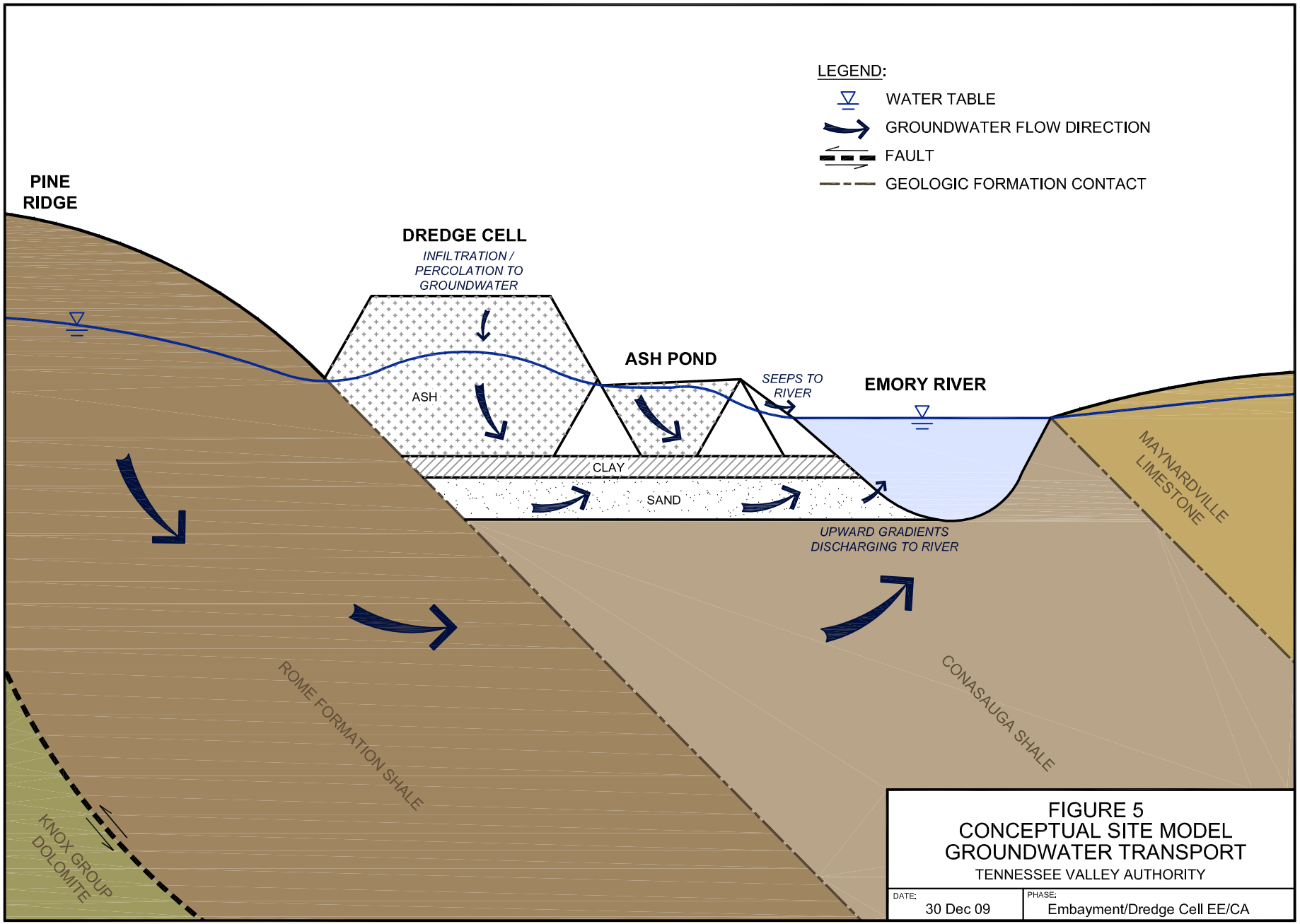
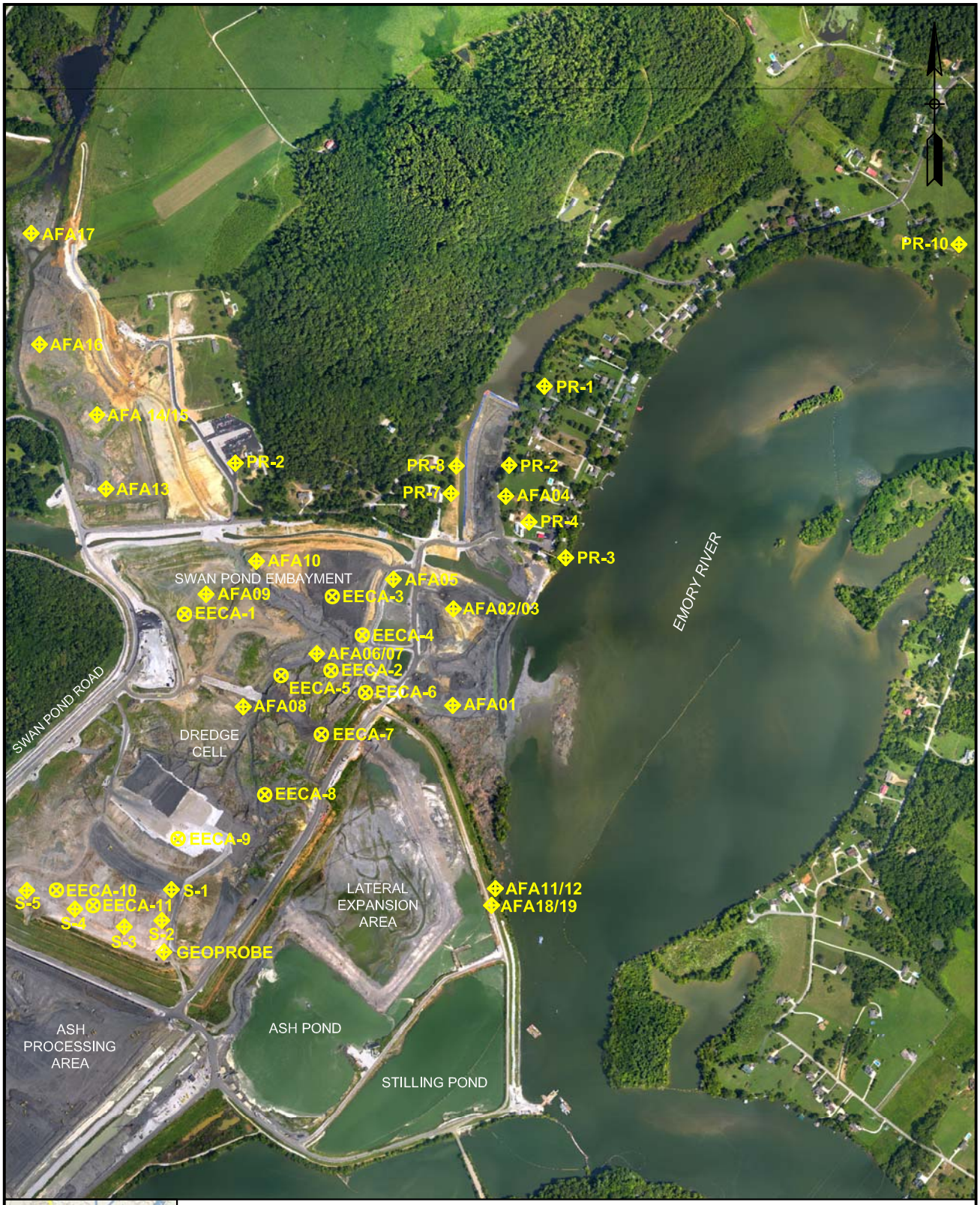
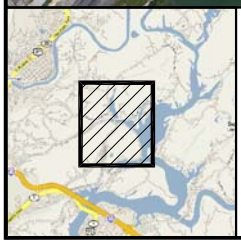


FIGURE 5
CONCEPTUAL SITE MODEL
GROUNDWATER TRANSPORT
TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA





LEGEND

⊕ DEC. 2008 ASH SAMPLING LOCATION

⊗ SEP. 2009 ASH SAMPLING LOCATION

0 500 1000 2000

SCALE IN FEET

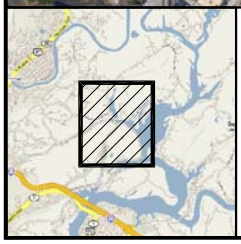
DATE OF PHOTO: AUG. 2009

FIGURE 6
TVA ASH SAMPLING LOCATIONS

TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\025_Fig 6 Ash Sampling Locations.dwg Dec 29,2009 -bperatro



LEGEND

GROUNDWATER MONITORING WELL

SURFACE WATER MONITORING STATION

0 500 1000 2000

SCALE IN FEET

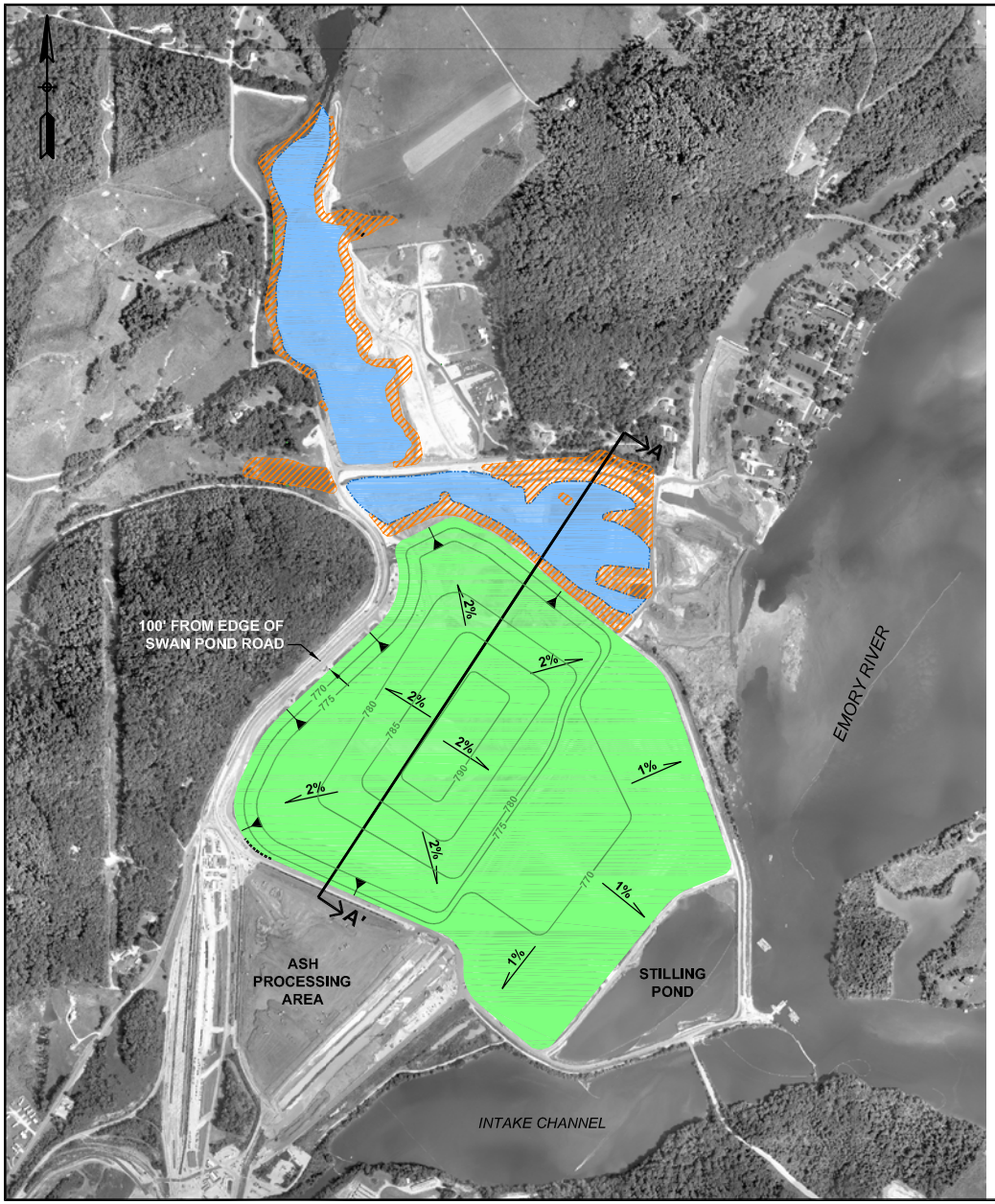
DATE OF PHOTO: AUG. 2009

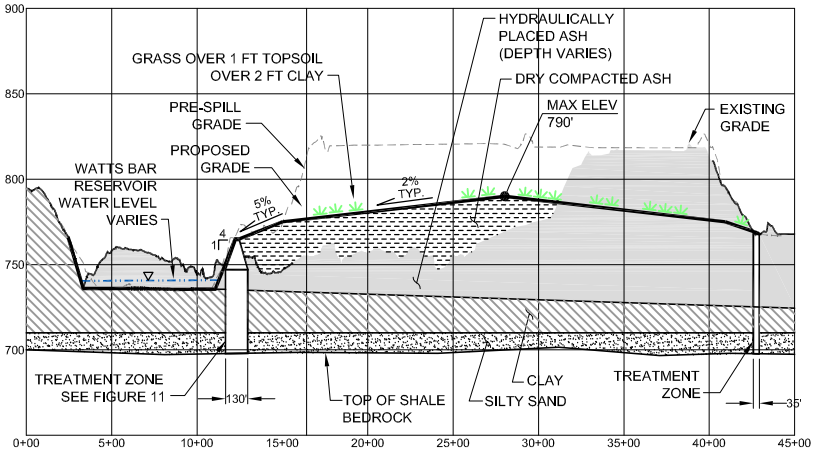
FIGURE 7
GROUNDWATER MONITORING WELLS & SURFACE WATER MONITORING STATIONS

TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\026_Fig 7 Well Locations.dwg Dec 29,2009 -bperatro





SECTION A-A'

NOT TO SCALE

LEGEND:

- RESTORED WETLANDS (MIXED FORESTED, SCRUB-SHRUB, AND EMERGENT)
- OPEN WATER
- TOPSOIL AND SEEDING

0 500 1000 2000

SCALE IN FEET

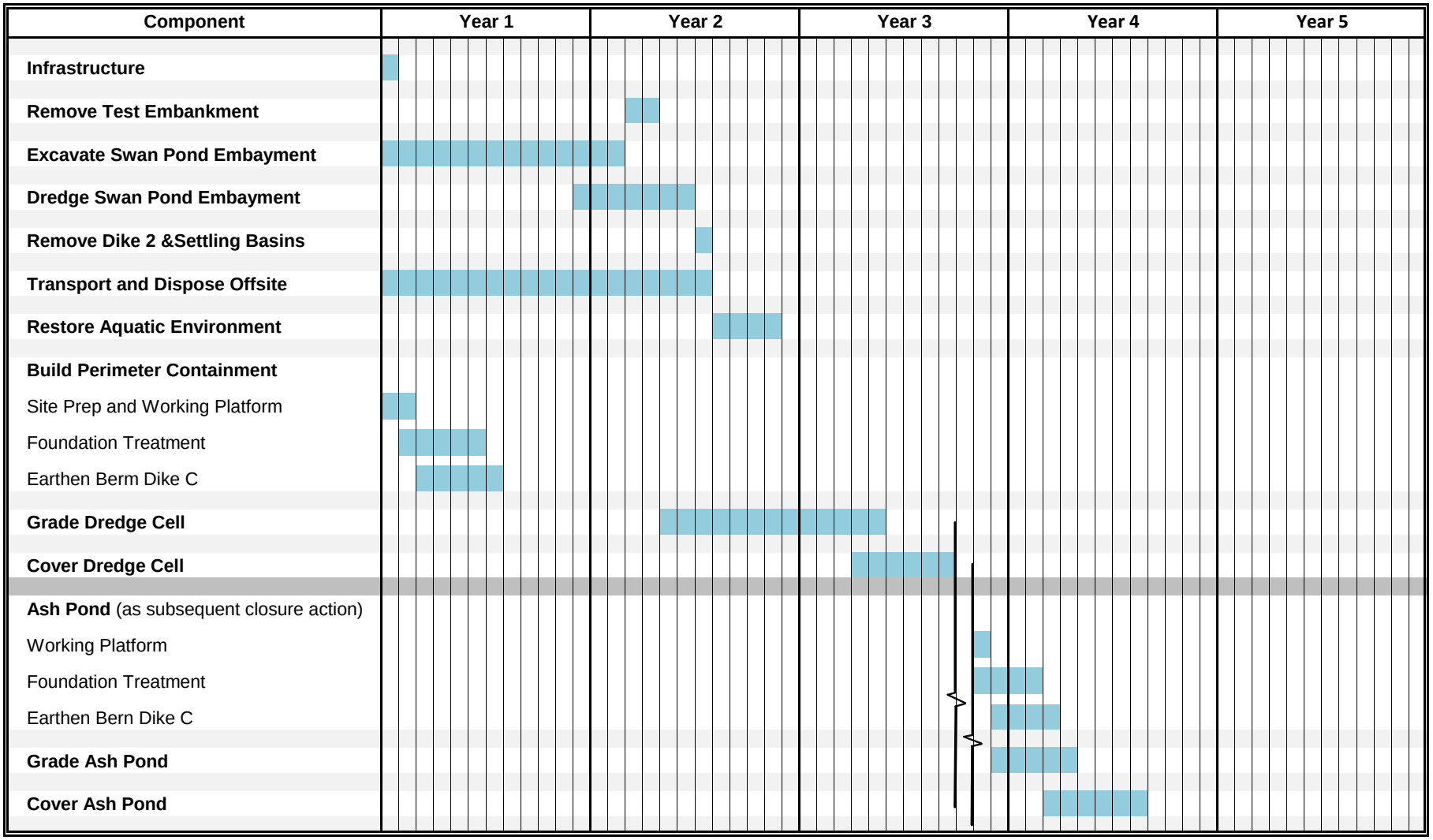
FIGURE 8
ALTERNATIVE 1 - RESTORATION LAYOUT AND CROSS-SECTION
TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

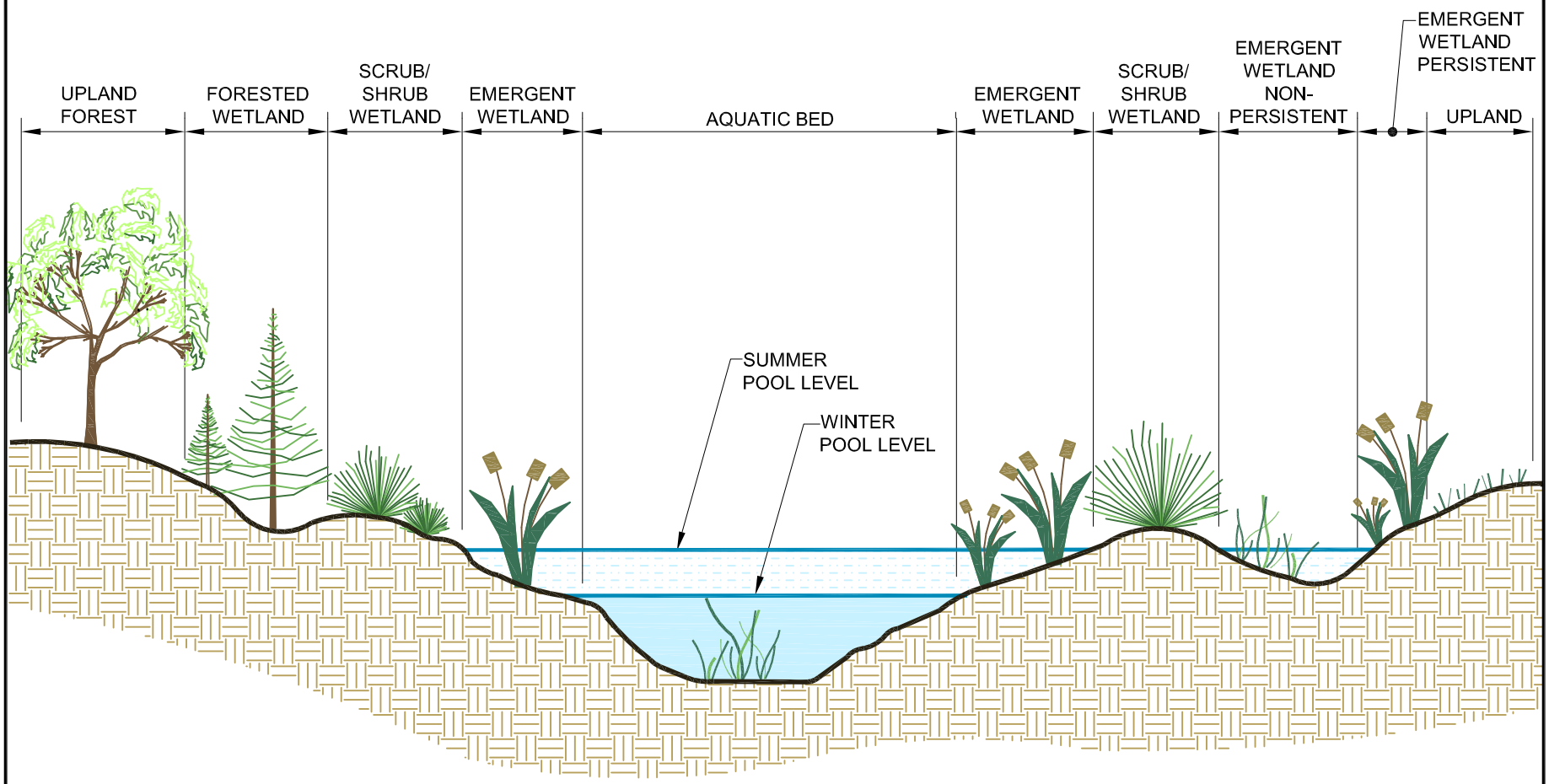
T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\027_Fig 8 Alt 1 Grading Plan.dwg Jan 14,2010 -bperatro

Figure 9. Conceptual Schedule for Alternative 1

(Duration represented in months after start of non-time-critical action)



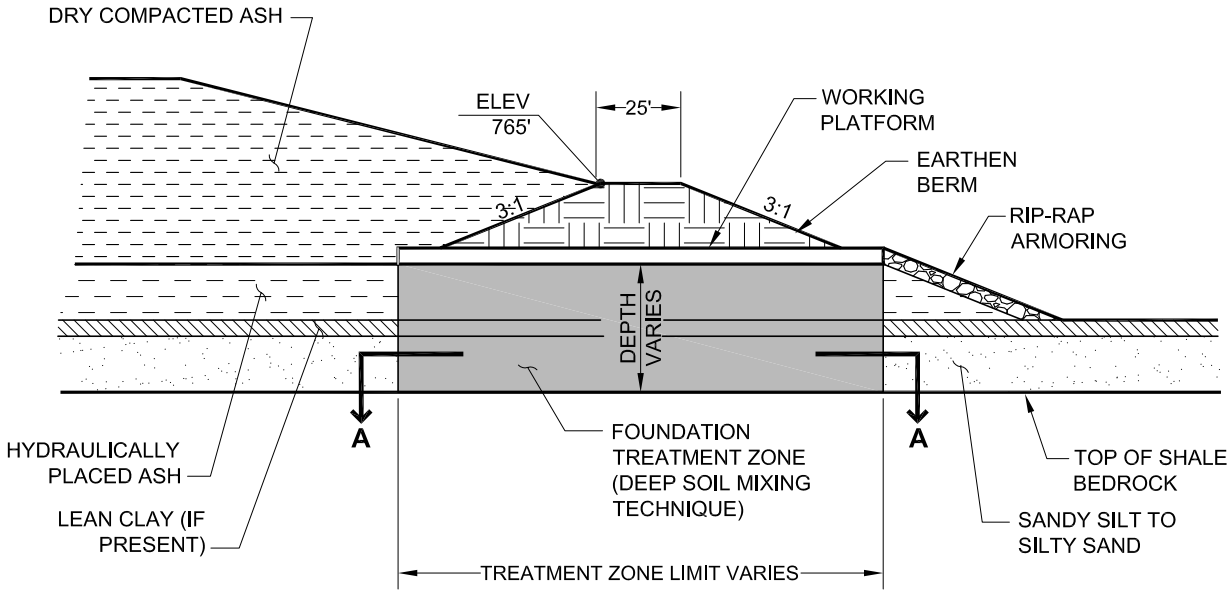
T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\029_Fig 10 Restored Embayment.dwg Dec 29,2009 -bperatro



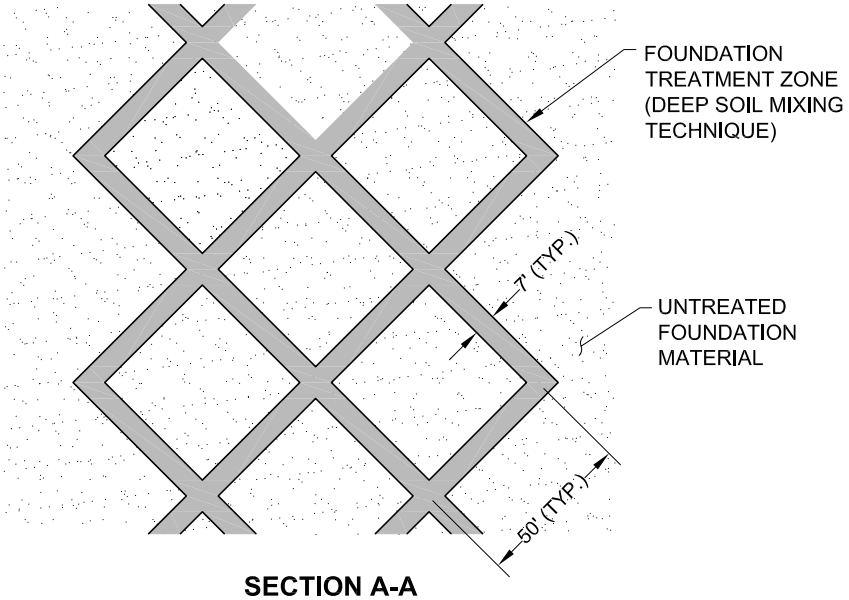
NOTE:
EXAMPLE OF COMPLEX MOSAIC OF NATIVE PLANT COMMUNITIES PROXIMATE TO THE RESTORED EMBAYMENTS. NOTE THE MICRODEPRESSION ON THE LEFT AND RIGHT SIDE OF THE AQUATIC BED THAT FACILITATES THE RESTORATION OF FORESTED AND EMERGENT WETLAND COMMUNITIES IN THE FLOODPLAIN.

FIGURE 10
CONCEPTUAL CROSS SECTION OF THE RESTORED EMBAYMENT
TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA



CONCEPTUAL FOUNDATION TREATMENT SECTION



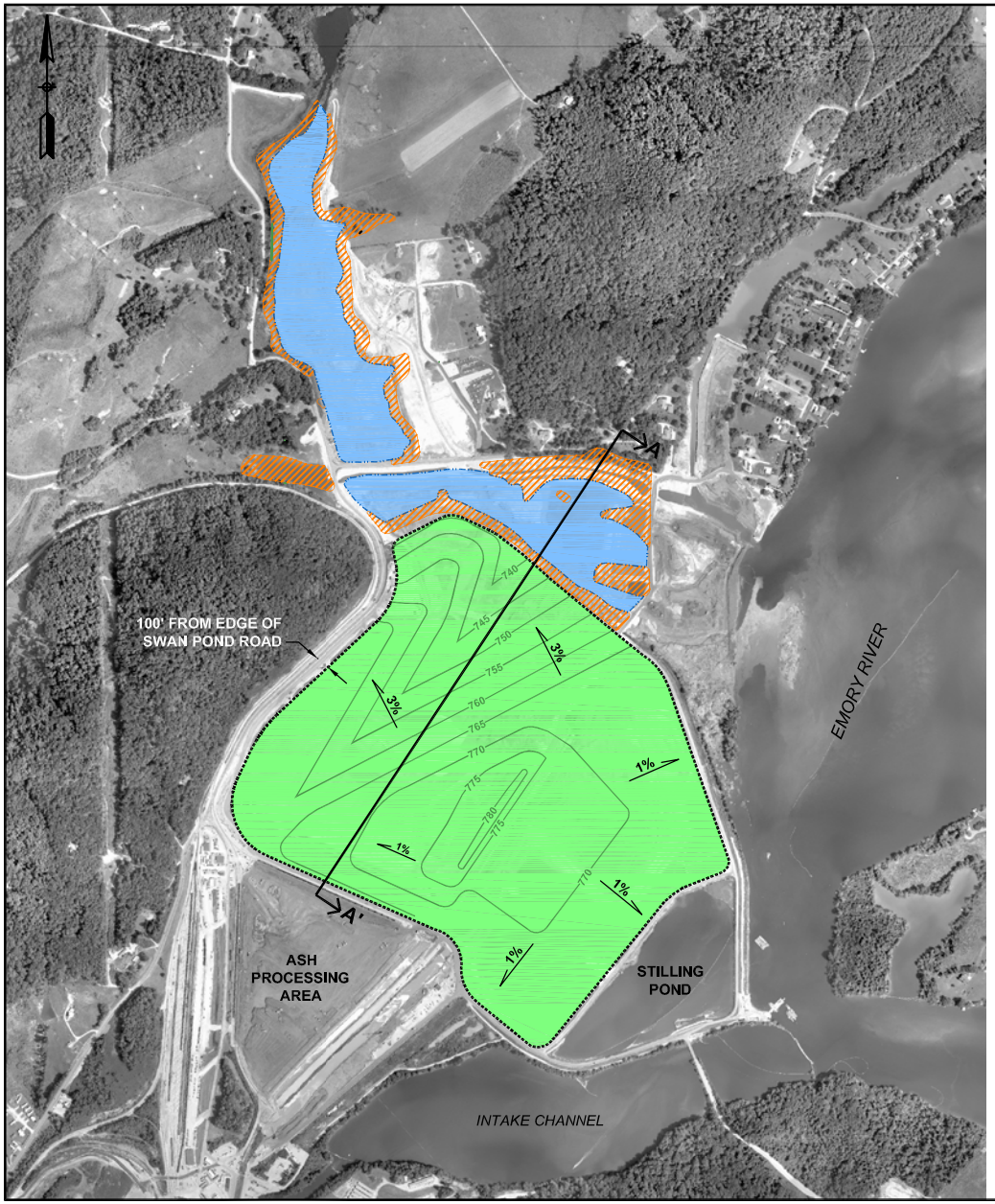
SECTION A-A

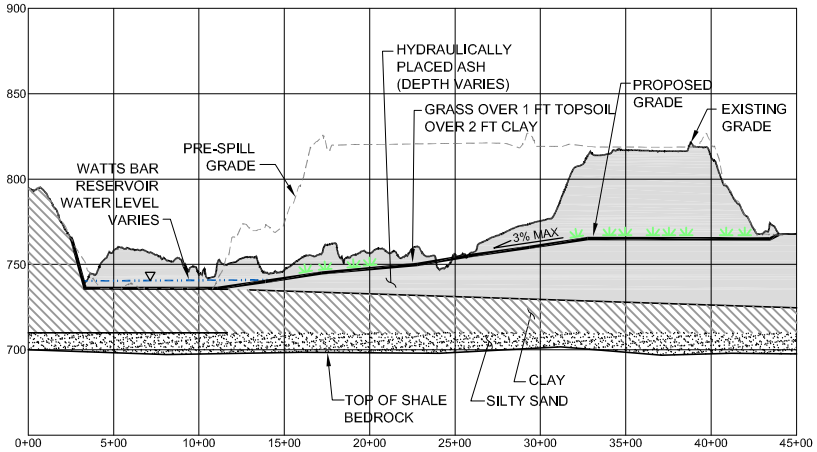
0 30 60 120
SCALE IN FEET

FIGURE 11
DREDGE CELL / EMBAYMENT AREA
PERIMETER IMPROVEMENTS
TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\030_Fig 11 Perimeter Improvements.dwg Jan 14,2010 -bperatro





SECTION A-A'

NOT TO SCALE

LEGEND:

- RESTORED WETLANDS (MIXED FORESTED, SCRUB-SHRUB, AND EMERGENT)
- OPEN WATER
- TOPSOIL AND SEEDING

0 500 1000 2000

SCALE IN FEET

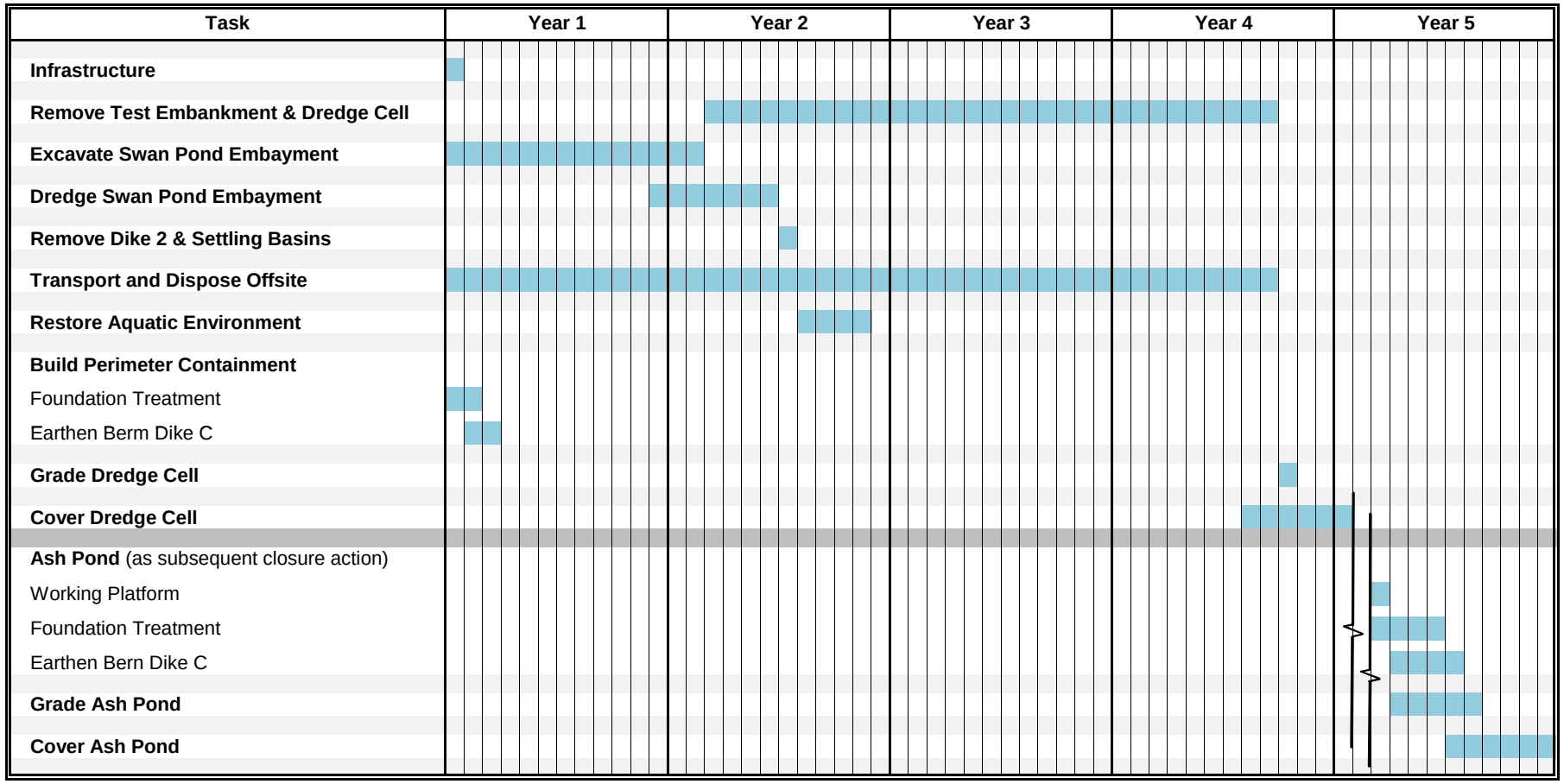
FIGURE 12
ALTERNATIVE 2 - RESTORATION LAYOUT AND CROSS-SECTION
TENNESSEE VALLEY AUTHORITY

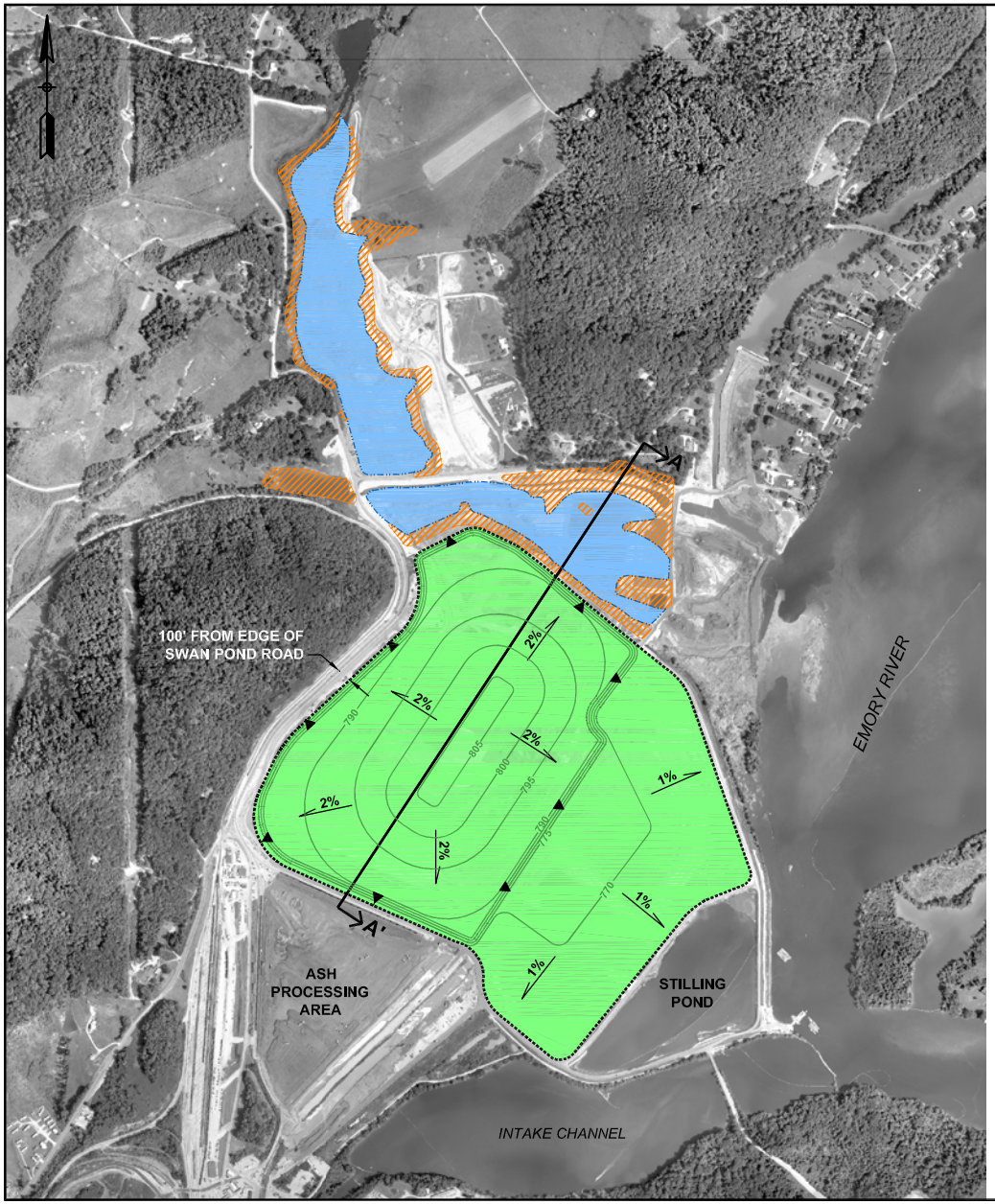
DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

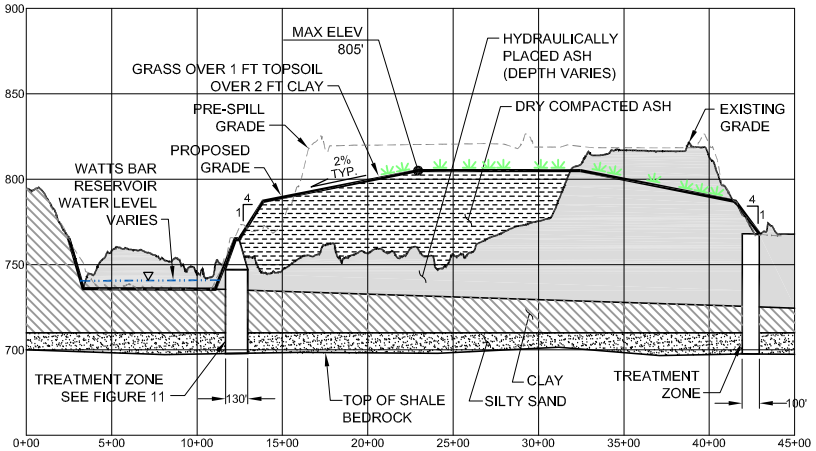
T:\0002 ENGINEERING\01 DRAWINGS AND SPECS\Report Graphics\031_Fig 12 Alt 2 Grading Plan.dwg Jan 14,2010 -bperatro

Figure 13. Conceptual Schedule for Alternative 2

(Duration represented in months after start of non-time-critical action)







SECTION A-A'

NOT TO SCALE

LEGEND:

- RESTORED WETLANDS (MIXED FORESTED, SCRUB-SHRUB, AND EMERGENT)
- OPEN WATER
- TOPSOIL AND SEEDING

0 500 1000 2000

SCALE IN FEET

FIGURE 14
ALTERNATIVE 3a - RESTORATION
LAYOUT AND CROSS-SECTION

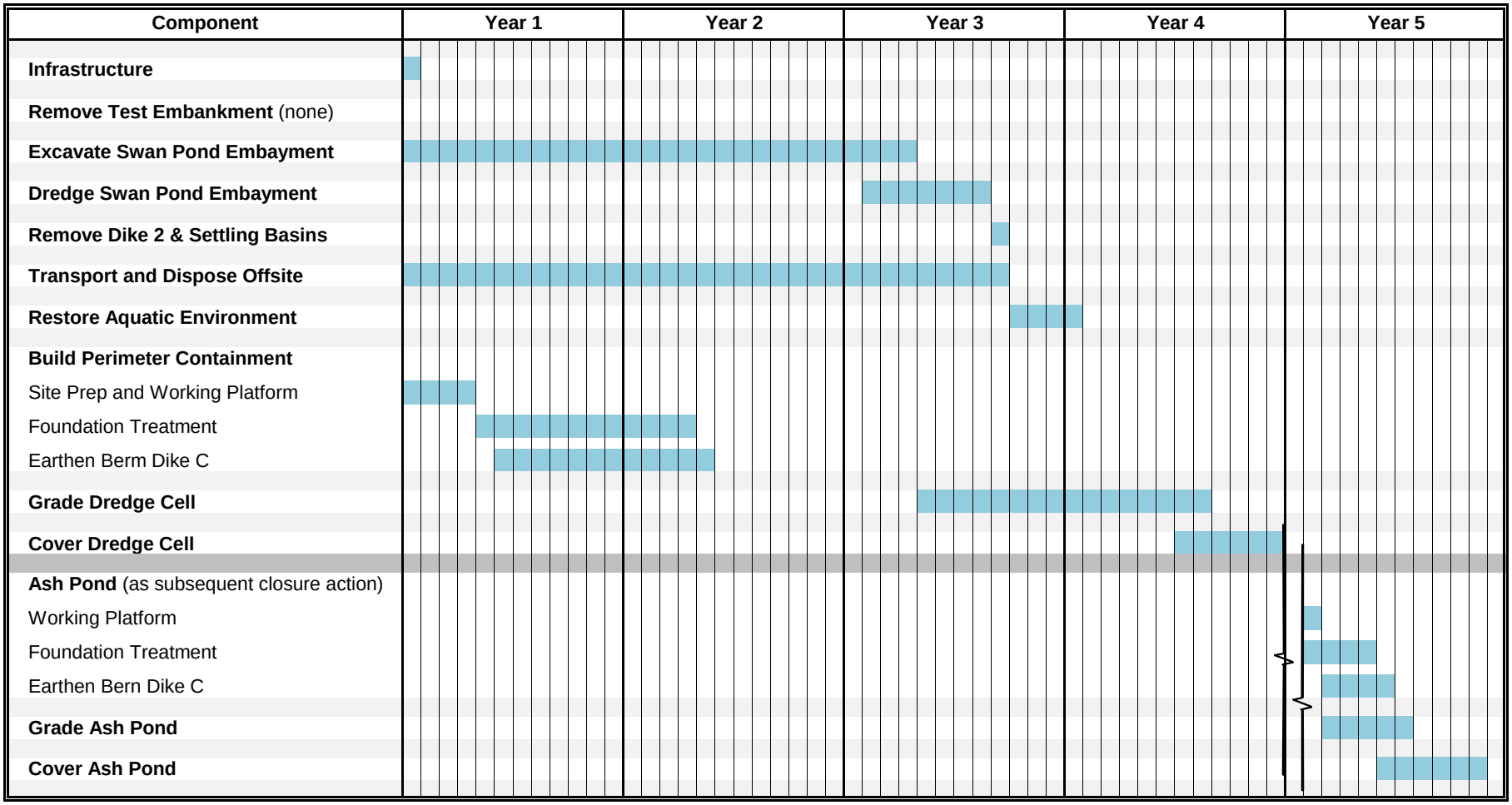
TENNESSEE VALLEY AUTHORITY

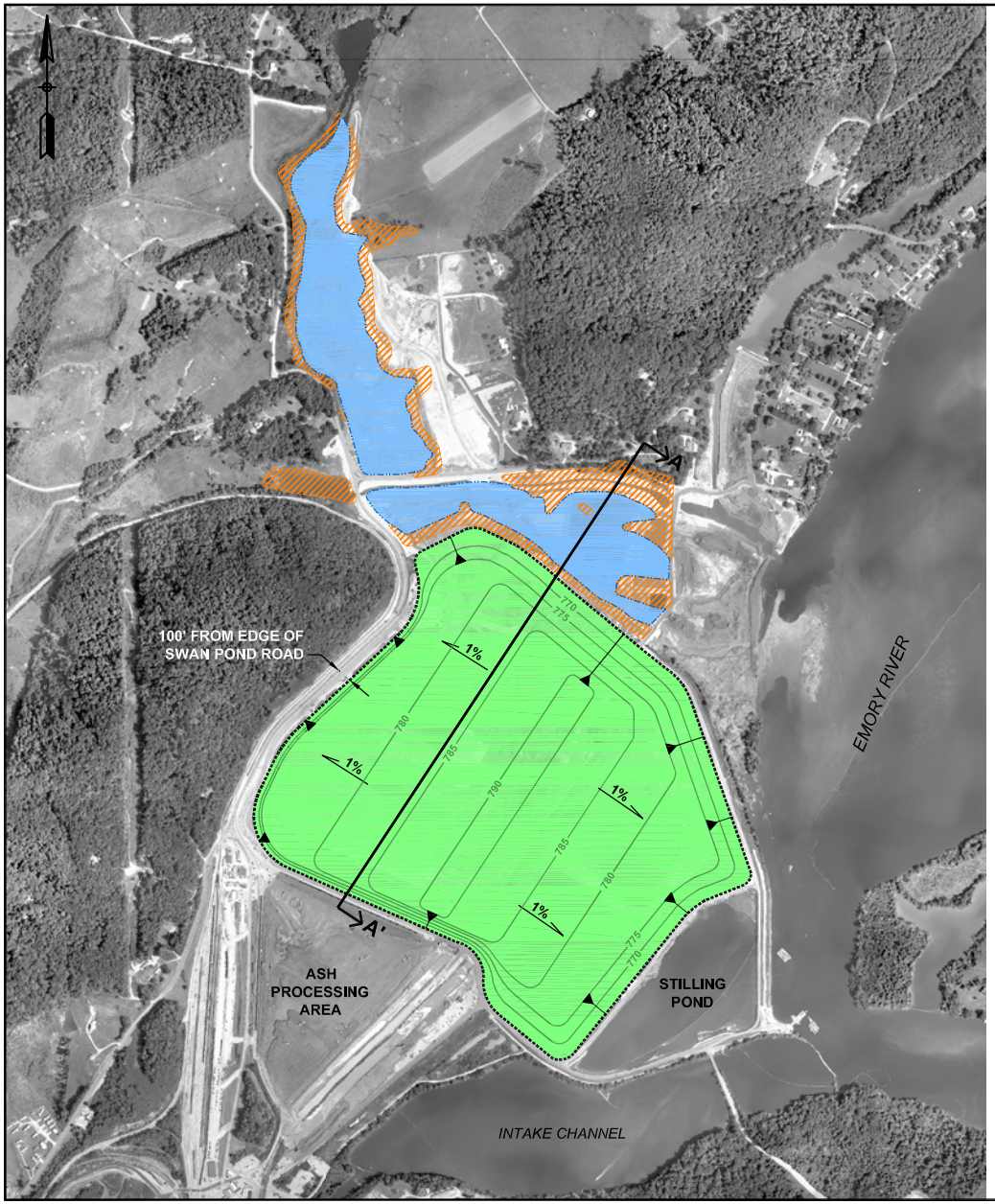
DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

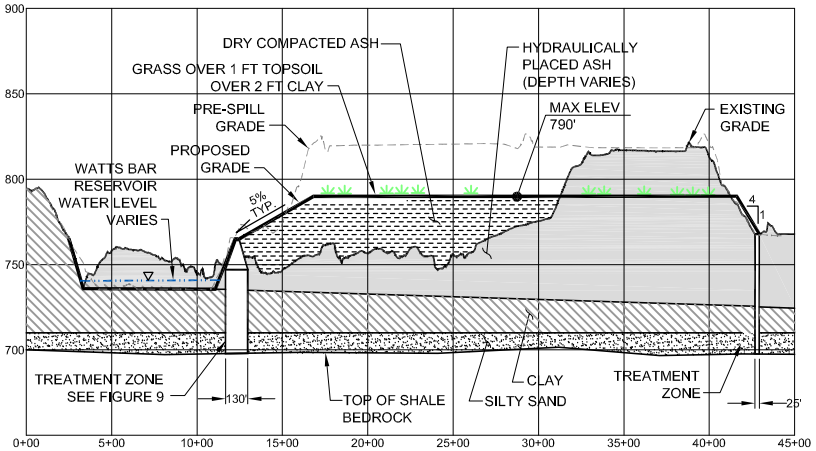
T:\00002 ENGINEERING\001 DRAWINGS AND SPECS\Report Graphics\033_Fig 14 Alt 3a Grading Plan.dwg Jan 14,2010-jperalto

Figure 15. Conceptual Schedule for Alternative 3a

(Duration represented in months after start of non-time-critical action)







SECTION A-A'

NOT TO SCALE

LEGEND:

- RESTORED WETLANDS (MIXED FORESTED, SCRUB-SHRUB, AND EMERGENT)
- OPEN WATER
- TOPSOIL AND SEEDING

0 500 1000 2000

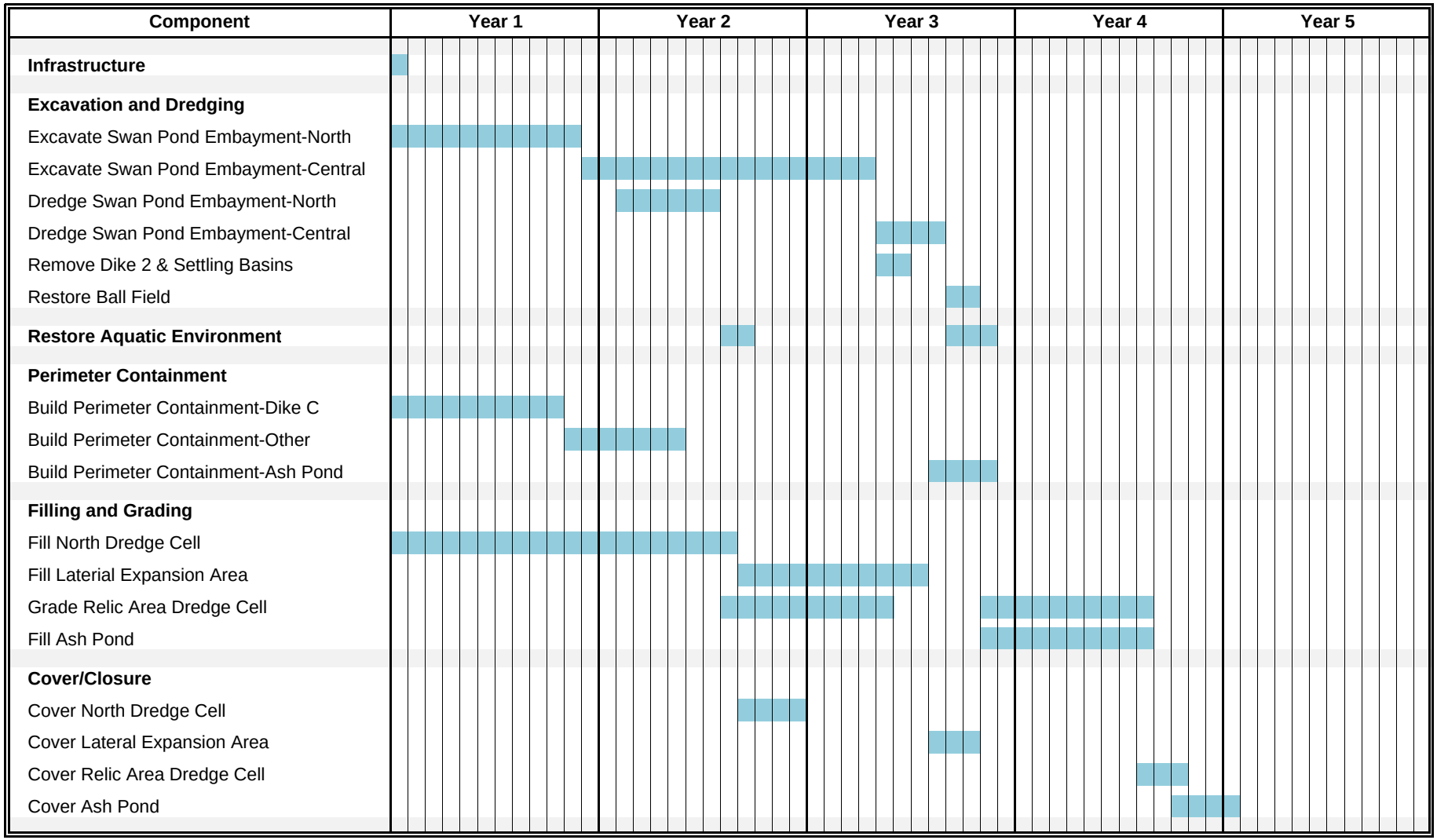
SCALE IN FEET

FIGURE 16
ALTERNATIVE 3b - RESTORATION
LAYOUT AND CROSS-SECTION

TENNESSEE VALLEY AUTHORITY

DATE:	PHASE:
30 Dec 09	Embayment/Dredge Cell EE/CA

T:\00002 ENGINEERING\001 DRAWINGS AND SPECS\Report Graphics\035_Fig 16 Alt 3b Grading Plan.dwg Jan 14,2010 -jperalto

Figure 17. Conceptual Schedule for Alternative 3b

(Duration represented in months after start of non-time-critical action)