



WOODCLIFF LAKE RESERVOIR IMPROVEMENT PROJECT

Enhancing the Safety of Our
Community

February 27, 2014



BUCK
SEIFERT
& JOST_{INC.}

NJDEP Dam Safety Requirements



- **NJDEP Bureau of Dam Safety has jurisdiction over dam permitting, construction, maintenance, inspection and enforcement.**
 - To ensure public safety
- **How does this apply to Woodcliff Lake Dam?**
 - Class I – High Hazard Potential Dam
 - The current dam does not meet the spillway criteria for a Probable Maximum Precipitation event according to state regulations
 - In 2007 the NJDEP reviewed and established the safe rate of flow for the dam at 30,000 cubic feet per second
 - Tropical Storm Floyd: 8,000 cubic feet per second
 - Hurricane Irene: 5,000 cubic feet per second
 - 30,000 cubic feet per second results in erosion of the earthen embankment and potential failure

WOODCLIFF LAKE DAM



Woodcliff Lake Dam Existing Spillway Photos:



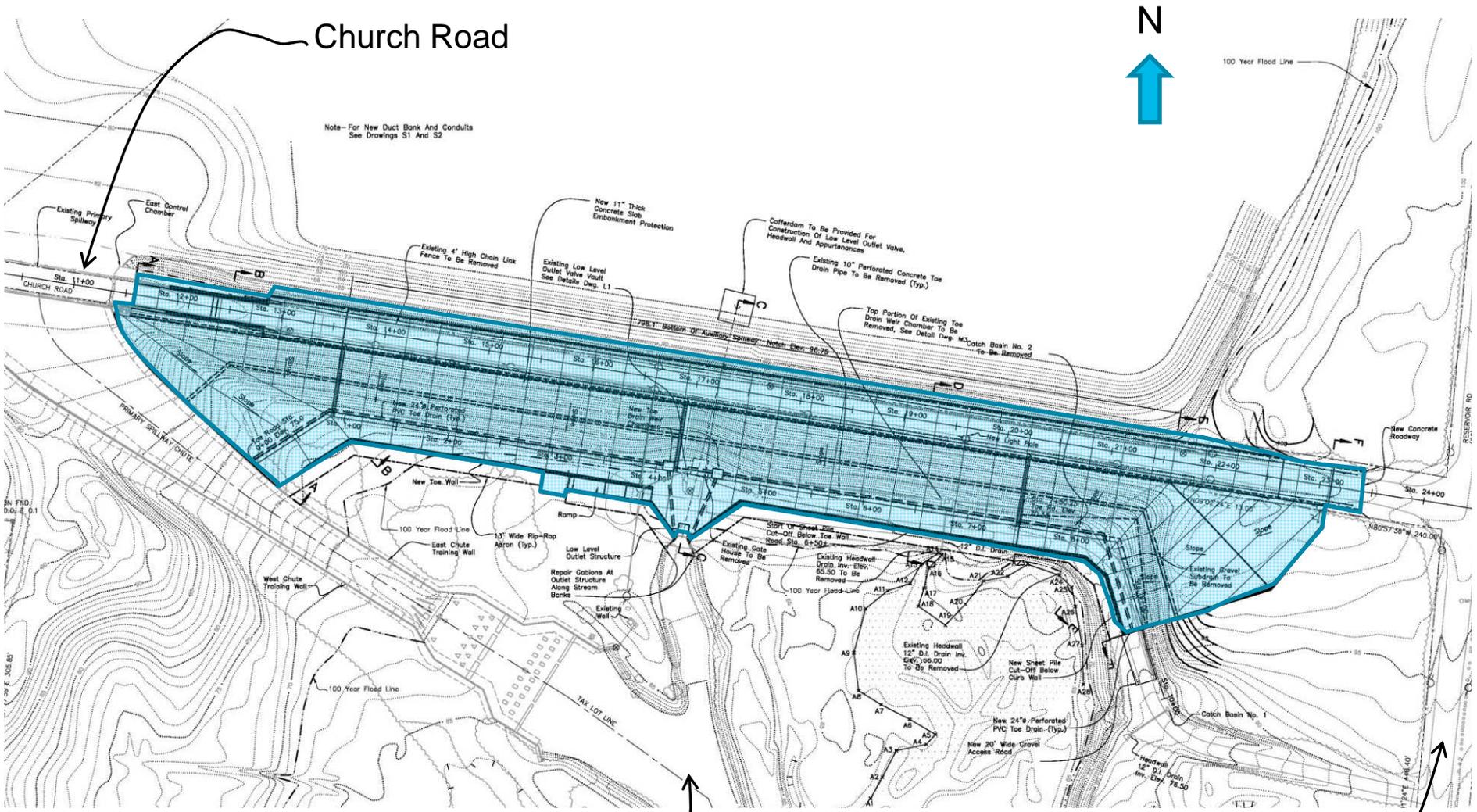
Upstream View



Downstream View

Existing Spillway Bascule Gates

NEW AUXILIARY SPILLWAY PLAN:

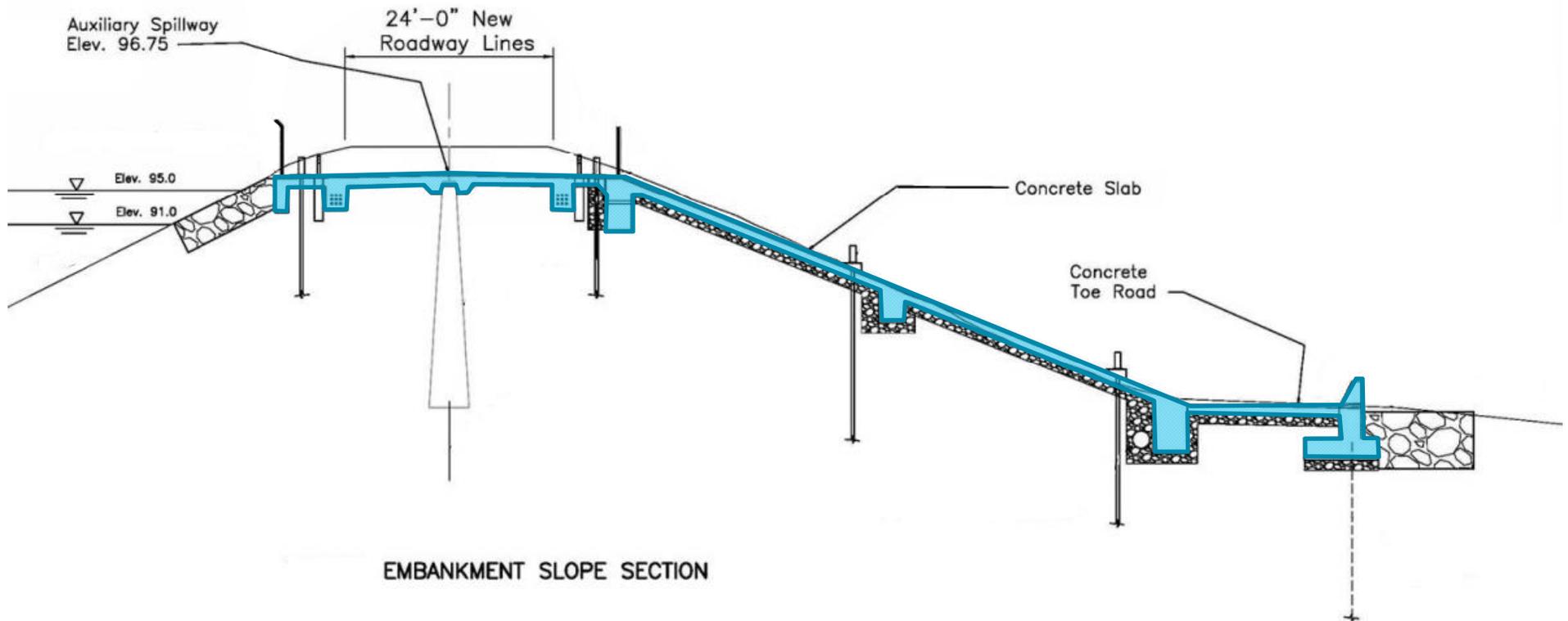


Pascack Brook

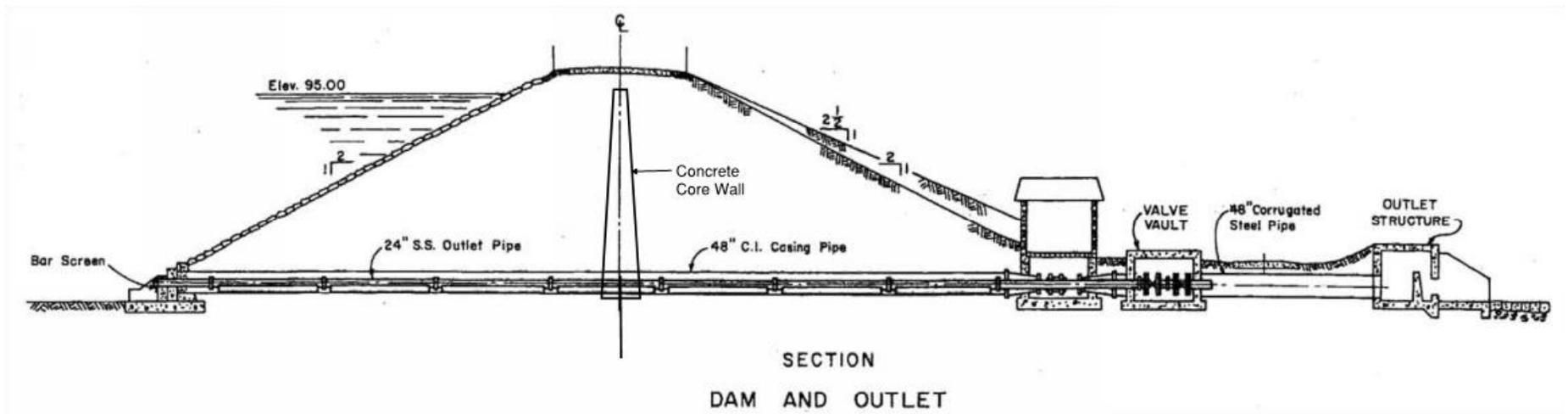
Reservoir Road

 New auxiliary spillway concrete areas

AUXILIARY SPILLWAY EMBANKMENT CROSS SECTION:



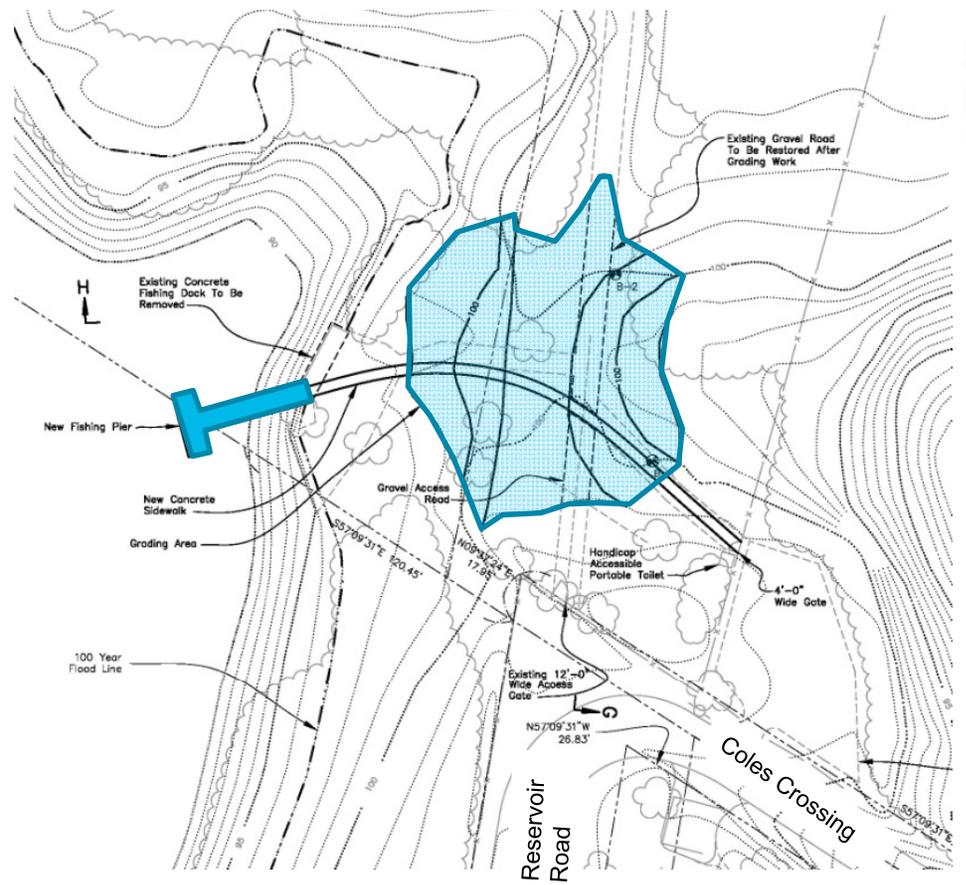
REHABILITATION OF LOW LEVEL OUTLET:



New Outlet Pipe to be Installed

EMBANKMENT AREA No. 1 in Woodcliff Lake:

- Fill to Raise Elevation to Prevent Overtopping Flow

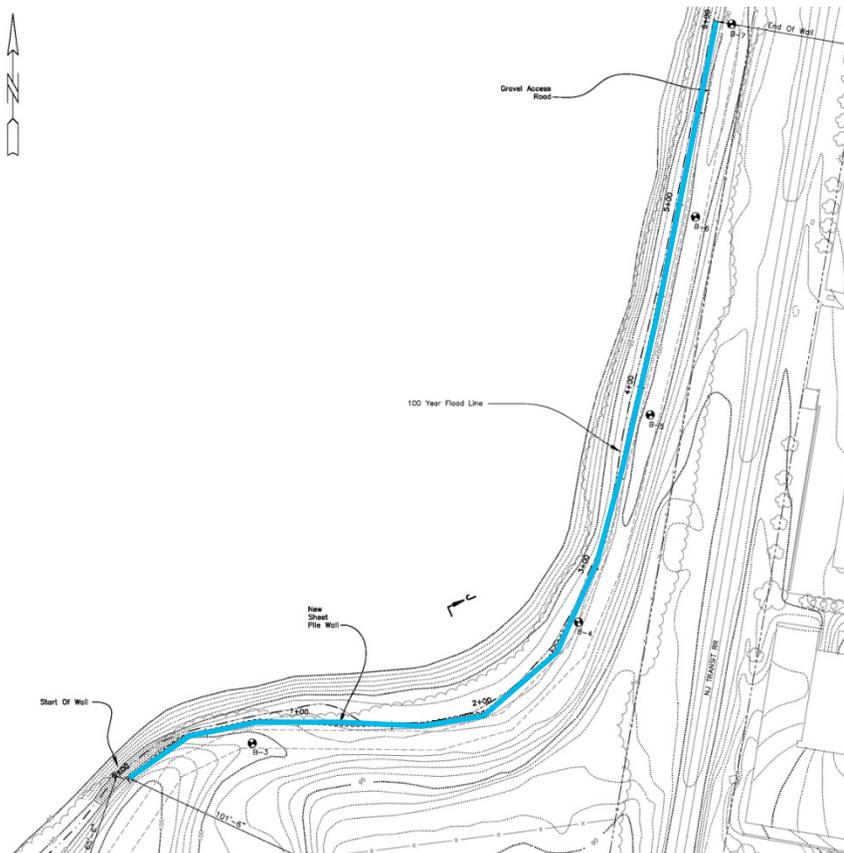


Embankment Area No. 1

EMBANKMENT AREA No. 2 in Woodcliff Lake:



- Provide Concrete Capped Steel Sheet Piling to Prevent Overtopping Flow



Embankment Area No. 2

PSE&G POLE RELOCATION:

- 13KV Lines Will Be Temporarily Relocated Underground
- At The End Of The Project PSE&G Will Install New Poles And Lines And Remove Temporary Underground Wires.



CONSTRUCTION ACCESS:



○ Construction Access

- Work Areas Will Be Accessed From:
 - Pascack Road and Broadway
 - Second Access to Area 2 from Train Station Parking Lot
 - 15 Ton Weight Limit On Church Road Bridge

- Church Road to be Closed During Construction
 - Between Longwood Ct. and Reservoir Rd.
- Truck Haul Route via Hillsdale Ave. / Patterson St.
 - Average of 10 trucks per day
 - Maximum of 60 trucks per day during peak 2 month period

Church Road Closed



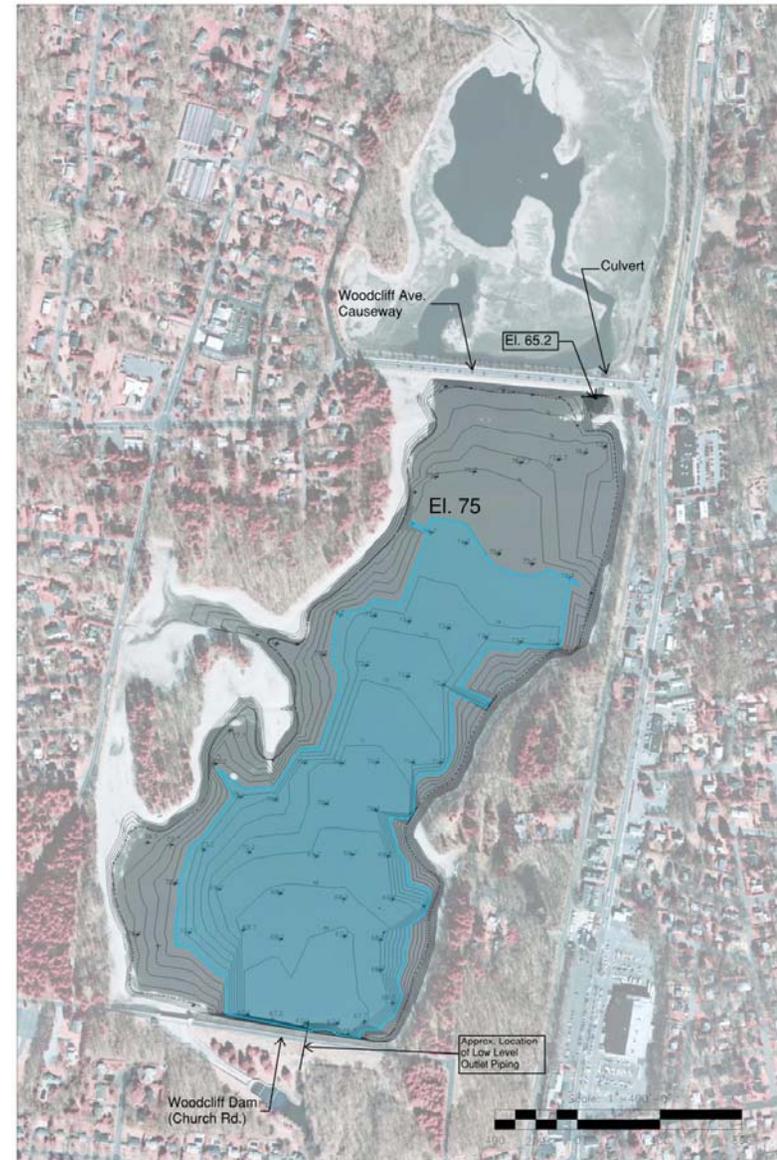
RESERVOIR LOWERING SCHEDULE:



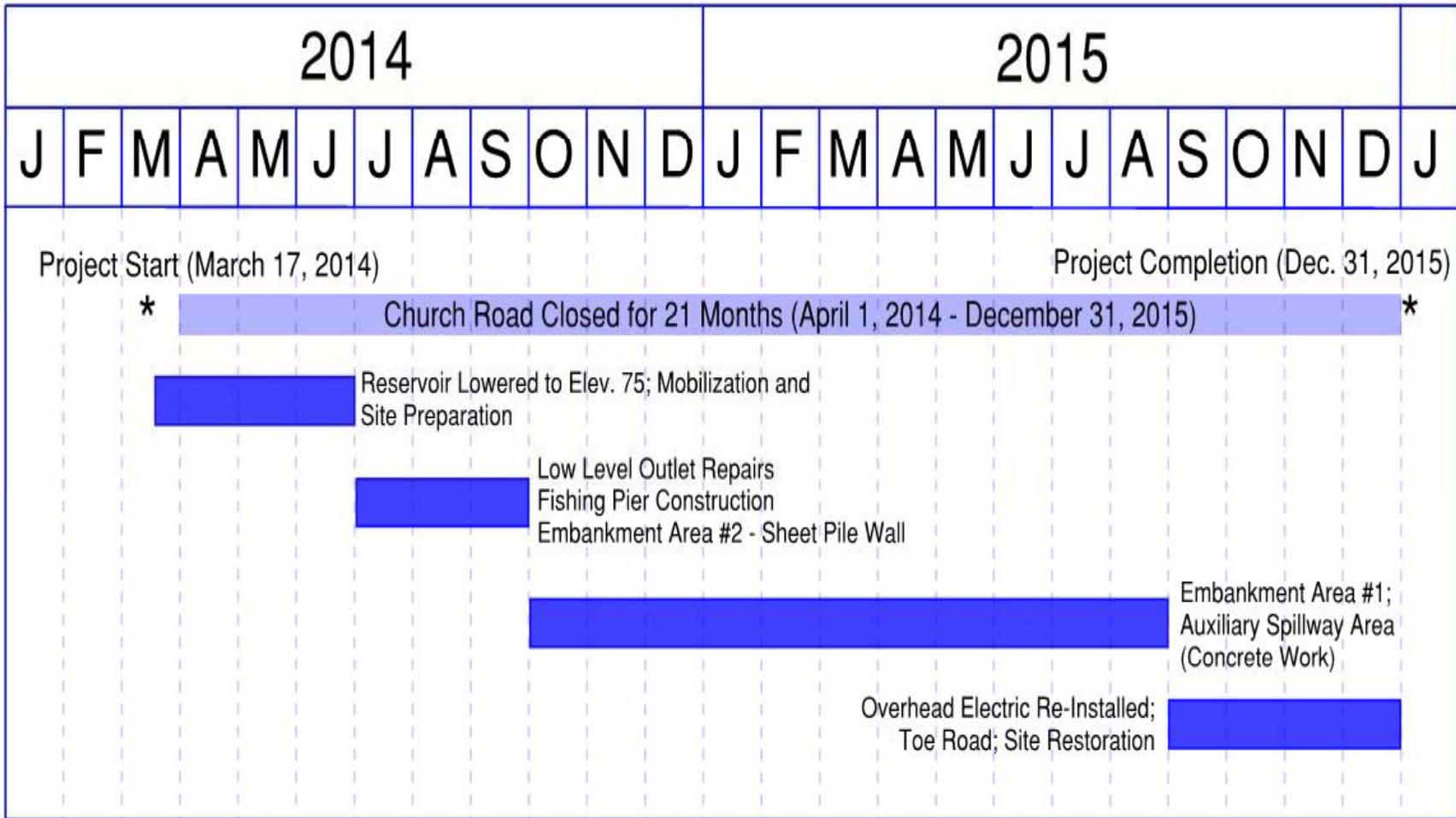
Woodcliff Lake Reservoir - 14' Lowering in 20 Days			
Anticipated Schedule			
Reservoir Lowering Phase	Phase Start Date	Time Required (Days)	Cumulative Lowering (ft.)
1) Lower reservoir (89' to 85')	3/24/2014	5	4
2) Wait 2 Days	3/29/2014	2	4
3) Lower reservoir (85' to 79')	3/31/2014	7	10
4) Wait 2 Days	4/7/2014	2	10
5) Lower reservoir (79' to 75')	4/9/2014	4	14
6) Reservoir Fully Lowered to 75'	4/13/2014		

Note:

1) Reservoir lowering assumes a daily reservoir inflow of 3 MGD.



PROJECT SCHEDULE:





Questions?