

ISSUE #9

Are there undue adverse downstream stormwater impacts associated with the base lodge subcatchment area; specifically, the water quantity components (i.e., overbank flood and extreme flood) included in the stormwater pond designs?

Testimony

- Shaun LaLonde – Agency Hearing Staff
- Mark Taber – Applicant Witness
- David Carr – Applicant Witness

Relevant Design Considerations

- 805(4)(a)(1) Water
 - Existing water quality
 - Natural sedimentation or siltation
 - Existing drainage and runoff patterns
 - Existing flow characteristics
 - Existing water table and rates of recharge
- 805(4)(a)(2) Land
 - (c) Floodplain and Flood Hazard

- The NYSDEC Stormwater Management Design Manual outlines four design criteria:
 - Water Quality Volume (WQv)
 - Stream Channel Protection Criteria (Cpv)
 - Overbank Flood Protection Criteria (Qp)
 - Extreme Flood Control Criteria(Qf)

Overbank Flood Protection Criteria (Qp)

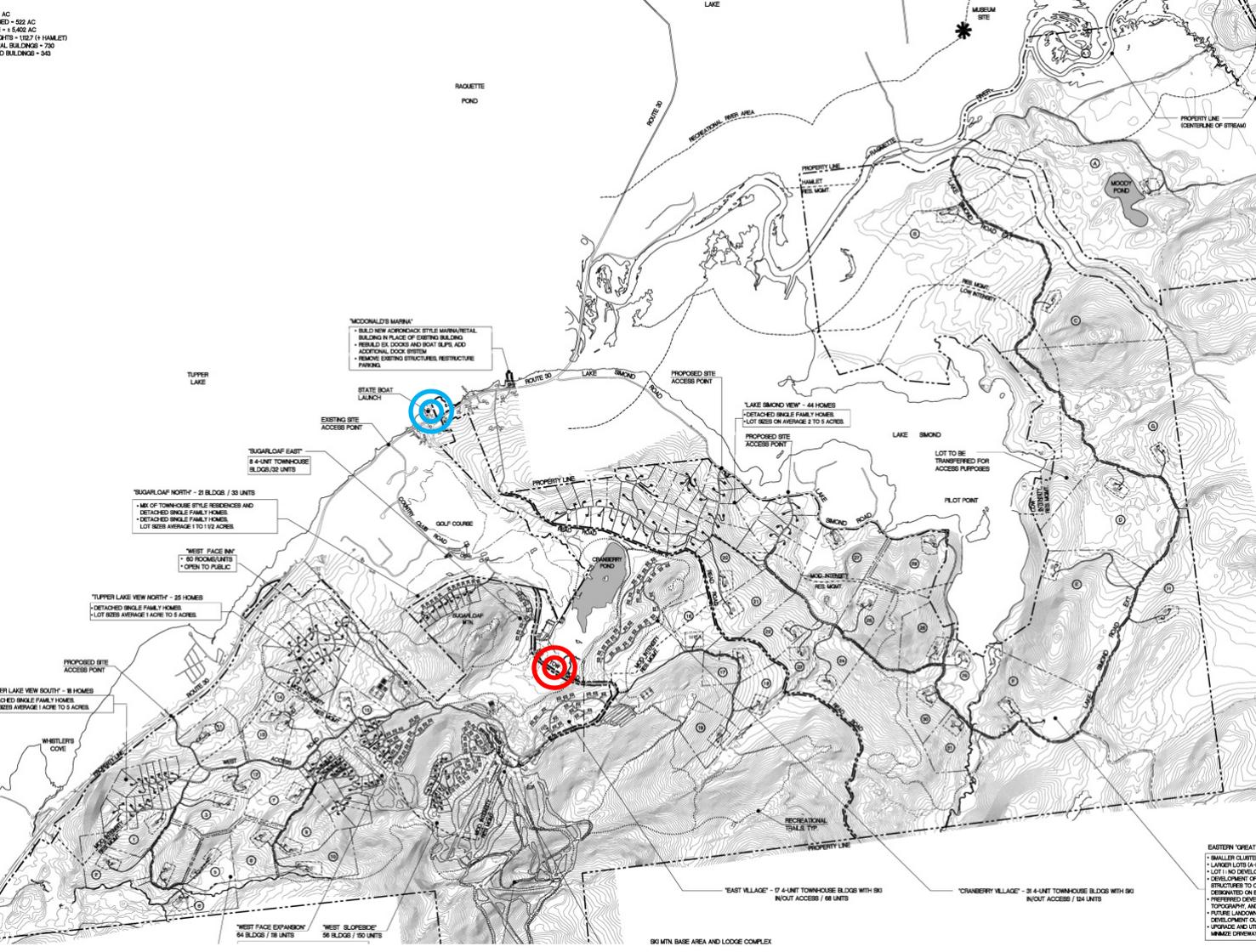
The primary purpose of the overbank flood control sizing criterion is to prevent an increase in the frequency and magnitude of out-of-bank flooding generated by urban development.

The Overbank control requires storage to attenuate the post development 10-year, 24-hour peak discharge rate to predevelopment rates.

Extreme Flood Control Criteria(Qf)

The intent of the extreme flood criteria is to (a) prevent the increased risk of flood damage from large storm events, (b) maintain the boundaries of the predevelopment 100-year floodplain, and (c) protect the physical integrity of stormwater management practices.

ED - 522 AC
 - 15,402 AC
 AL BUILDINGS - 730
 D BUILDINGS - 343



'MCDONALD'S MARINA'

- BUILD NEW ACRONACK STYLE MARINA/RETAIL BUILDING IN PLACE OF EXISTING BUILDING
- REBUILD EX. DOCKS AND BOAT RAMP, ADD ADDITIONAL DOCK BERTHS
- REMOVE EXISTING STRUCTURES, RESTRUCTURE PARKING

'LAKE SMOCK VIEW' - 44 HOMES

- DETACHED SINGLE FAMILY HOMES
- LOT SIZES ON AVERAGE 2 TO 3 ACRES

'SUGARLOAF EAST'

- 8-4 UNIT TOWNHOUSE BLDGS/28 UNITS

'SUGARLOAF NORTH' - 21 BLDGS / 28 UNITS

- MIX OF TOWNHOUSE STYLE RESIDENCES AND DETACHED SINGLE FAMILY HOMES
- DETACHED SINGLE FAMILY HOMES
- LOT SIZES AVERAGE 1 TO 1.2 ACRES

'WEST FACE INN'

- 50 ROOMS/UNITS
- OPEN TO PUBLIC

'TUPPER LAKE VIEW NORTH' - 25 HOMES

- DETACHED SINGLE FAMILY HOMES
- LOT SIZES AVERAGE 1 ACRE TO 3 ACRES

'LAKE VIEW SOUTH' - 18 HOMES

- DETACHED SINGLE FAMILY HOMES
- LOT SIZES AVERAGE 1 ACRE TO 3 ACRES

'EAST VILLAGE' - 17-4 UNIT TOWNHOUSE BLDGS WITH 80 IN/OUT ACCESS / 68 UNITS

'CHERRY VILLAGE' - 31-4 UNIT TOWNHOUSE BLDGS WITH 80 IN/OUT ACCESS / 124 UNITS

'WEST FACE EXPANSION'

- 64 BLDGS / 78 UNITS

'WEST SLOPESIDE'

- 56 BLDGS / 100 UNITS

EASTERN 'GREAT'

- SMALLER CLUSTERS
- LARGER LOTS (1/4 - 1/2 AC)
- LOT / NO DEVEL
- DEVELOPMENT OF STRUCTURES TO BE DESIGNATED ON E
- PREFERRED LAND
- TOPOGRAPHY AND
- FUTURE LANDOWN DEVELOPMENT ON
- UPGRADE AND ITS
- MINIMIZE DRIVEWAY

Since Project Completion (2006)

- NYSDOT replaced a 36" culvert under NYS Route 30 with a 60" X 42" elliptical culvert
- This culvert accepts stormwater runoff contribution from part of the West Slopeside, Base Lodge Area, East Village, Cranberry Village, and Sugarloaf East proposed developments
- Applicant has eliminated the proposed East Ridge Development and upper portions of the West Slopeside and West Face from the original submission

Applicant's Analysis

Existing Peak Discharge Rates vs Proposed Peak Discharge Rates					
At DP-E1 (60"x42" NYSDOT concrete elliptical culvert at NYS Route 30)					
Existing			Proposed		
<i>Design Storm</i>	Rate (cfs)	Time (hr)	<i>Design Storm</i>	Rate (cfs)	Time (hr)
<i>1-Year</i>	50.31	15.62	<i>1-Year</i>	42.49	13.26
<i>10-Year</i>	290.21	14.18	<i>10-Year</i>	247.86	14.34
<i>100-Year</i>	594.70	13.80	<i>100-Year</i>	558.92	13.84

Ski Tow Road & The Hydraulic Crossing Below It

- Currently two side by side culverts connecting wetlands on either side of the road half filled with sediment
- It is recommended by Agency hearing staff that these culverts be replaced with a properly sized culvert to further protect wetlands and water and sewer infrastructure proposed to be within the road right-of-way

NYSDEC Approval

Through the course of the hearing record it became evident the applicant must meet the current NYSDEC Standards established in their Stormwater Design Manual Revised in 2010 requiring additional measures not included in the applicable Standards in place at the time of initial site design and stormwater control layout.

The Applicants closing statement stated that no significant changes to the project will result from the above requirement.

Summation

Due to Applicant concessions made regarding development on shallow soils, both proposed and future culvert upgrades and associated supporting analysis (2010 Stormwater Report Submission); Hearing Staff has rendered this stormwater issue satisfied pending necessary approvals required by the NYSDEC