Attachment prepared by J. Ambrose July 27, 2007

## Larkspur Subdivision A Brief Visual Guide of its Landscape Features

OBJECTIVE: To show both the natural and man-made landscape features.

Three streams (intermittent and perennial), two upland wetlands, rocky outcrops, and a utility Right-of-Way (Cardinal gas pipeline) are located on this 45.8 acre tract. Five culverts traverse Lichen Trail. These streams flow into Wilkerson Creek which is a tributary of the Haw River.

PURPOSE: To identify those areas which require the appropriate setbacks/buffers and/or installation of filters (skimmers, baffles, & riprap) to prevent the silting of streams and wetlands as well as erosion damage to adjacent lands caused by increased natural storm water runoff created during lot development and road construction.

## CONTENT:

- Larkspur Subdivision PSP Map (modified to show culverts and wetlands)
- Wetlands (at culverts 2 & 4)
- Five Culverts along Lichen Trail
- Rocky Outcrop (lot 1) and Hilly Terrain (pipeline, lots 19 & 22)
- Wilkerson Creek



The current Larkspur PSP map was altered to show the location of the five culverts

PEN SPACE

SR 1528 (80' PUBLIC R/M

EN SPACE

along Lichen Trail and of the two wetland areas.

Culverts 1 & 3 drain stormwater culvert 2 runoff from the roadbed and hilly terrain. An intermittent stream (from lot 2) flows across the pipeline R-O-W and is joined by two smaller streams before discharging at culvert 2. At the transition zone culvert 3 between the woodlands and BO' RA R-O-W, there is a remnant population of cattail (Typha) plants in the streambed. The small wetland (culvert 2) may be springfed: stream flow continues under moderate to severe drought conditions. An intermittent stream (lots 21/7-10) flows into a second larger wetland culvert 4 where clubmoss (Lycopdium) plants thrive. These two upland culvert 5 wetlands are fragile communities which need to be conserved.

A springfed perennial stream divides lot 22 and drains into culvert 5. Downstream from culverts 4 & 5, the two streams merge and flow into Wilkerson Creek which is a tributary of the Haw River. = wetland



Cuivert 2. wettand. winter. Lot 15.

Culvert 4. Wetland. Winter. Lot 21. ▼



Same area as above. Summer drought conditions. Lot 21. ▼

Two upland wetland habitats shown.



▲ Culvert 4. Upstream from wetland. Winter. Lot 21.

▼ Clubmoss (*Lycopodium*). Summer. Lot 21.







▲ Clubmoss covering wetland slope. Summer. Lot 21.



Storm water runoff to culvert 1. Lot 16.  $\blacktriangle$ 



▲ Stream crosses gas pipeline right-of-way (between lots 4 and 14/15). Winter. Culvert 2.





▲ Two views of storm water runoff to culvert 3. (Open space between lots 11 & 13.)

Upstream from culvert 2 (between lots 14 &15).

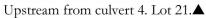




▼ Upsream from culvert 5. Lot 22.

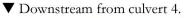


▼ Downstream from culvert 5.

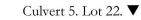




▲ Stream between lots 10 & 21. Winter. Culvert 4.











▼ Streams from culverts 4 & 5 merge downstream.





▲ Northeast-facing slope. Lot 22. Stream (lower right corner) to culvert 5.



▲ Upstream from culvert 5. Stream flows above and below ground. Lot 22.



Rocky outcrop. Lot 1.

Heavy storm water runoff from R-O-W clearing erodes private driveway (Hanner & Simpson lot). ▼





▲ Cardinal right-of-way (R-O-W) crosses Andrews Store Road (center gray line). Lots 19 & 20 (left of R-O-W). Open space (right of R-O-W).



▲ North-facing R-O-W slope to Andrews Store Road. Lot 20 (pine trees).



Wilkerson Creek. March, 2005.



Wilkerson Creek. February, 2007  $\blacktriangle$