

## SUMMARY OF NITROGEN AND PHOSPHORUS LOADS – Scenario 2

SKI Proposal: Provide ENR treatment to 1,518 existing homes with septics and 560 new homes

| <b>EXISTING CONDITIONS – Septic Systems</b> |   | <b>NITROGEN LOADS - LBS/YEAR</b> |                  | <b>PHOSPHORUS LOADS - LBS/YEAR</b> |               |
|---|---|----------------------------------|------------------|------------------------------------|---------------|
| Septic Systems                              | 940 homes within the Critical Area              | 17,446                           |                  | 0                                  |               |
|   | 113 homes within 1,000 ft of a perennial stream | 1,311                            |                  | 0                                  |               |
|   | 465 homes beyond the Critical Area              | 3,236                            |                  | 0                                  |               |
|   | vacant lots                                     | 0                                | Subtotal: 21,993 | 0                                  |               |
| Non-point                                   | 1,518 homes on 878 acres                        | 6,895                            |                  | 337                                |               |
|   | vacant lots on 327 acres                        | 1,528                            | Subtotal: 8,423  | 60                                 | Subtotal: 397 |
|   |   | About 30,400 lbs/yr              | TOTAL            | About 400 lbs/yr                   | TOTAL         |

| <b>FUTURE CONDITIONS – Connect to WWTP</b> |   |                     |       |                  |       |
|--|---|---------------------|-------|------------------|-------|
| ENR  | 1,518 existing homes on ENR and<br>560 new homes on ENR                             | 4,987               |       | 374              |       |
| Non-point                                  | 1,518 existing homes on 878 acres and<br>560 new homes on 327 acres<br>(assume ESD) | 8,158               |       | 401              |       |
|  |   | About 13,100 lbs/yr | TOTAL | About 780 lbs/yr | TOTAL |

**Scenario 2**

Prior to development, the vacant land was assumed to be 50% forest and 50% pervious (grass).

After development, the land was assumed to be 20% forest, 50% pervious (grass), and 30% impervious.

**Reduction in Nitrogen Loads**

|           |                 |
|-----------|-----------------|
| Existing  | 30,400          |
| Future    | <u>- 13,100</u> |
| Reduction | 17,300 lbs/yr   |

**Increase in Phosphorus Loads**

|          |              |
|----------|--------------|
| Future   | 780          |
| Existing | <u>- 400</u> |
| Increase | 380 lbs/yr   |