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Water-Data Report 2007

**0214655255 MCALPINE CREEK AT SECONDARY ROAD 3150 NEAR IDLEWILD, NC**

Santee Basin  
Lower Catawba Subbasin

LOCATION.--Lat 35°10'33", long 80°43'09" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on left bank at upstream side of culvert on Secondary Road 3150 (Idlewild Road), 1.5 mi above Irvin's Creek, and 1.6 mi southeast of Idlewild.

DRAINAGE AREA.--7.52 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--June 1999 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 613.19 ft above North American Vertical Datum of 1988, from levels. Radio telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. No flow also occurred July 11, August 13-14, 2002, August 22, September 14, 27-30, 2007.  
Maximum discharge for period of record from rating curve extended above 800 ft<sup>3</sup>/s on basis of culvert computation of peak flow.

**0214655255 MCALPINE CREEK AT SECONDARY ROAD 3150 NEAR IDLEWILD, NC—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**  
**DAILY MEAN VALUES**

| <b>Day</b>   | <b>Oct</b> | <b>Nov</b> | <b>Dec</b> | <b>Jan</b> | <b>Feb</b> | <b>Mar</b> | <b>Apr</b> | <b>May</b> | <b>Jun</b> | <b>Jul</b> | <b>Aug</b> | <b>Sep</b> |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>1</b>     | 0.68       | 2.1        | 6.9        | 9.2        | 20         | 56         | 2.7        | 1.6        | 0.67       | 1.8        | 0.84       | 2.1        |
| <b>2</b>     | 0.73       | 2.2        | 4.0        | 5.5        | 17         | 172        | 2.9        | 1.8        | 0.64       | 1.1        | 0.68       | 1.4        |
| <b>3</b>     | 0.64       | 2.1        | 2.9        | 3.9        | 6.9        | 12         | 2.2        | 1.5        | 3.8        | 0.85       | 0.52       | 0.53       |
| <b>4</b>     | 0.66       | 2.3        | 2.5        | 3.6        | 4.7        | 6.4        | 2.1        | 1.7        | 1.1        | 0.75       | 0.47       | 0.50       |
| <b>5</b>     | 0.65       | 2.4        | 2.3        | 29         | 3.9        | 5.3        | 1.9        | 1.8        | 0.78       | 0.66       | 0.46       | 0.27       |
| <b>6</b>     | 0.70       | 3.4        | 2.2        | 21         | 3.2        | 4.3        | 1.8        | 1.8        | 0.70       | 0.81       | 0.42       | 0.24       |
| <b>7</b>     | 0.80       | 16         | 2.1        | 32         | 3.2        | 3.6        | 1.7        | 1.4        | 0.64       | 1.3        | 0.40       | 0.21       |
| <b>8</b>     | 8.9        | 20         | 1.9        | 47         | 2.9        | 3.2        | 1.7        | 1.3        | 0.83       | 0.84       | 0.39       | 0.24       |
| <b>9</b>     | 2.4        | 5.6        | 1.8        | 11         | 2.8        | 2.9        | 1.8        | 1.4        | 1.1        | 0.96       | 0.33       | 0.22       |
| <b>10</b>    | 1.3        | 3.3        | 2.6        | 6.2        | 2.7        | 3.0        | 1.8        | 1.8        | 0.56       | 1.6        | 0.27       | 0.20       |
| <b>11</b>    | 0.90       | 9.2        | 2.6        | 4.4        | 2.9        | 2.9        | 3.2        | 1.4        | 0.53       | 0.59       | 0.24       | 0.12       |
| <b>12</b>    | 1.4        | 35         | 2.3        | 4.0        | 2.7        | 2.6        | 15         | 1.6        | 0.67       | 1.3        | 0.22       | 0.07       |
| <b>13</b>    | 0.74       | 6.1        | 2.2        | 3.7        | 58         | 2.6        | 3.5        | 1.6        | 2.9        | 0.76       | 0.24       | 0.04       |
| <b>14</b>    | 0.70       | 3.9        | 2.0        | 3.7        | 53         | 2.5        | 2.7        | 1.3        | 5.4        | 0.62       | 0.22       | 0.02       |
| <b>15</b>    | 0.73       | 3.8        | 2.0        | 3.5        | 8.9        | 2.5        | 88         | 1.1        | 2.6        | 1.9        | 0.17       | 1.4        |
| <b>16</b>    | 0.74       | 124        | 1.9        | 3.4        | 5.5        | 9.5        | 16         | 1.1        | 1.3        | 1.7        | 0.14       | 0.52       |
| <b>17</b>    | 63         | 12         | 1.9        | 2.8        | 4.6        | 4.9        | 5.0        | 1.0        | 0.97       | 0.81       | 0.09       | 0.28       |
| <b>18</b>    | 23         | 4.8        | 2.0        | 4.0        | 4.0        | 3.3        | 3.8        | 0.89       | 0.78       | 1.1        | 0.07       | 0.15       |
| <b>19</b>    | 4.3        | 3.7        | 2.0        | 4.0        | 3.4        | 2.8        | 5.3        | 0.82       | 0.68       | 0.77       | 0.06       | 0.10       |
| <b>20</b>    | 3.3        | 3.0        | 1.9        | 3.2        | 3.3        | 2.6        | 7.7        | 0.86       | 0.64       | 0.67       | 0.04       | 0.12       |
| <b>21</b>    | 2.3        | 115        | 1.9        | 10         | 3.5        | 2.5        | 3.5        | 0.86       | 0.60       | 0.52       | 0.01       | 0.10       |
| <b>22</b>    | 2.0        | 318        | 29         | 23         | 3.2        | 2.5        | 2.7        | 0.76       | 0.48       | 0.47       | 0.45       | 0.12       |
| <b>23</b>    | 2.0        | 23         | 13         | 6.7        | 2.9        | 2.5        | 2.4        | 0.74       | 0.47       | 0.44       | 0.74       | 0.10       |
| <b>24</b>    | 1.7        | 7.9        | 4.6        | 4.5        | 2.9        | 2.5        | 2.2        | 0.72       | 0.56       | 0.41       | 0.55       | 0.08       |
| <b>25</b>    | 1.6        | 5.0        | 61         | 3.7        | 17         | 2.6        | 2.2        | 0.70       | 26         | 0.43       | 0.37       | 0.06       |
| <b>26</b>    | 1.6        | 4.0        | 16         | 3.0        | 9.5        | 2.7        | 1.9        | 0.69       | 12         | 0.85       | 0.97       | 0.03       |
| <b>27</b>    | 8.9        | 3.5        | 6.4        | 3.0        | 5.0        | 2.7        | 2.4        | 0.79       | 2.9        | 17         | 1.8        | 0.00       |
| <b>28</b>    | 28         | 3.2        | 4.3        | 3.7        | 3.9        | 2.5        | 2.0        | 0.91       | 1.8        | 11         | 0.52       | 0.00       |
| <b>29</b>    | 4.5        | 4.3        | 3.6        | 3.1        | ---        | 2.7        | 2.0        | 0.75       | 1.3        | 2.2        | 0.30       | 0.00       |
| <b>30</b>    | 2.9        | 3.5        | 3.2        | 2.7        | ---        | 2.4        | 1.7        | 1.0        | 6.3        | 1.4        | 0.51       | 0.00       |
| <b>31</b>    | 2.3        | ---        | 4.4        | 2.6        | ---        | 2.2        | ---        | 0.79       | ---        | 1.1        | 2.4        | ---        |
| <b>Total</b> | 174.07     | 752.3      | 197.4      | 271.1      | 261.5      | 332.7      | 193.8      | 36.48      | 79.70      | 56.71      | 14.89      | 9.22       |
| <b>Mean</b>  | 5.62       | 25.1       | 6.37       | 8.75       | 9.34       | 10.7       | 6.46       | 1.18       | 2.66       | 1.83       | 0.48       | 0.31       |
| <b>Max</b>   | 63         | 318        | 61         | 47         | 58         | 172        | 88         | 1.8        | 26         | 17         | 2.4        | 2.1        |
| <b>Min</b>   | 0.64       | 2.1        | 1.8        | 2.6        | 2.7        | 2.2        | 1.7        | 0.69       | 0.47       | 0.41       | 0.01       | 0.00       |
| <b>Cfsm</b>  | 0.75       | 3.33       | 0.85       | 1.16       | 1.24       | 1.43       | 0.86       | 0.16       | 0.35       | 0.24       | 0.06       | 0.04       |
| <b>In.</b>   | 0.86       | 3.72       | 0.98       | 1.34       | 1.29       | 1.65       | 0.96       | 0.18       | 0.39       | 0.28       | 0.07       | 0.05       |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2007, BY WATER YEAR (WY)**

|             | <b>Oct</b> | <b>Nov</b> | <b>Dec</b> | <b>Jan</b> | <b>Feb</b> | <b>Mar</b> | <b>Apr</b> | <b>May</b> | <b>Jun</b> | <b>Jul</b> | <b>Aug</b> | <b>Sep</b> |
|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Mean</b> | 4.35       | 6.18       | 6.43       | 5.48       | 7.52       | 11.0       | 8.43       | 5.52       | 8.92       | 6.11       | 5.36       | 6.85       |
| <b>Max</b>  | 8.81       | 25.1       | 18.3       | 9.20       | 12.1       | 26.1       | 31.2       | 31.1       | 53.5       | 21.0       | 15.2       | 34.4       |
| (WY)        | (2000)     | (2007)     | (2003)     | (2000)     | (2003)     | (2003)     | (2003)     | (2003)     | (2003)     | (2003)     | (2006)     | (2004)     |
| <b>Min</b>  | 0.45       | 0.82       | 1.70       | 1.11       | 2.78       | 2.40       | 2.24       | 1.12       | 0.64       | 0.79       | 0.48       | 0.25       |
| (WY)        | (2001)     | (2002)     | (2001)     | (2004)     | (2006)     | (2006)     | (2002)     | (2004)     | (2002)     | (2002)     | (2007)     | (2005)     |

**021465525 MCALPINE CREEK AT SECONDARY ROAD 3150 NEAR IDLEWILD, NC—Continued****SUMMARY STATISTICS**

|                                 | <b>Calendar Year 2006</b> | <b>Water Year 2007</b> | <b>Water Years 1999 - 2007</b> |        |
|---------------------------------|---------------------------|------------------------|--------------------------------|--------|
| <b>Annual total</b>             | 2,472.90                  | 2,379.87               |                                |        |
| <b>Annual mean</b>              | 6.78                      | 6.52                   | 6.98                           |        |
| <b>Highest annual mean</b>      |                           |                        | 19.2                           | 2003   |
| <b>Lowest annual mean</b>       |                           |                        | 2.94                           | 2002   |
| <b>Highest daily mean</b>       | 318                       | Nov 22                 | 318                            | Nov 22 |
| <b>Lowest daily mean</b>        | 0.09                      | Aug 3                  | 0.00                           | Sep 27 |
| <b>Annual seven-day minimum</b> | 0.15                      | Jul 14                 | 0.02                           | Sep 24 |
| <b>Maximum peak flow</b>        |                           |                        | 761                            | Nov 21 |
| <b>Maximum peak stage</b>       |                           |                        | 6.21                           | Nov 21 |
| <b>Instantaneous low flow</b>   |                           |                        | <sup>a</sup> 0.00              | Aug 21 |
| <b>Annual runoff (cfsm)</b>     | 0.901                     | 0.867                  | 0.928                          |        |
| <b>Annual runoff (inches)</b>   | 12.23                     | 11.77                  | 12.61                          |        |
| <b>10 percent exceeds</b>       | 9.3                       | 10                     | 12                             |        |
| <b>50 percent exceeds</b>       | 2.0                       | 2.1                    | 2.0                            |        |
| <b>90 percent exceeds</b>       | 0.66                      | 0.29                   | 0.35                           |        |

<sup>a</sup> See Remarks.

