```
#model comparision - Coastal region
```

Likelihood ratio tests of Negative Binomial Models

Response: imp_cnt

Model theta

1 as.factor(shw_15) + wDay + month + year + NWS_HW + offset(log(pop)) 4.864392

2 as.factor(shw_08) + wDay + month + year + NWS_HW + offset(log(pop)) 4.617069

3 as.factor(shw_07) + wDay + month + year + NWS_HW + offset(log(pop)) 4.521469

4 as.factor(shw_16) + wDay + month + year + NWS_HW + offset(log(pop)) 4.515428

5 as.factor(mhw_07) + wDay + month + year + NWS_HW + offset(log(pop)) 4.320588

Resid. df 2 x log-lik. Test df LR stat. Pr(Chi)

1 692 -4166.515

2 692 -4192.897 1 vs 2 0 -26.382418 1

3 692 -4199.178 2 vs 3 0 -6.280587 1

4 692 -4210.087 3 vs 4 0 -10.909058 1

5 692 -4222.149 4 vs 5 0 -12.061846 1

```
#model comparision - Piedmont region
```

Likelihood ratio tests of Negative Binomial Models

Response: imp_cnt

Model theta

1 as.factor(shw_08) + wDay + month + year + NWS_HW + offset(log(pop)) 4.191791

2 as.factor(shw_07) + wDay + month + year + NWS_HW + offset(log(pop)) 4.181156

3 as.factor(shw_15) + wDay + month + year + NWS_HW + offset(log(pop)) 4.147594

4 as.factor(mhw_07) + wDay + month + year + NWS_HW + offset(log(pop)) 3.979051

5 as.factor(mhw_28) + wDay + month + year + NWS_HW + offset(log(pop)) 3.852728

Resid. df 2 x log-lik. Test df LR stat. Pr(Chi)

1 707 -4549.352

2 707 -4549.650 1 vs 2 0 -0.2979834 1

3 707 -4559.350 2 vs 3 0 -9.7000418 1

4 707 -4569.999 3 vs 4 0 -10.6486262 1

5 707 -4587.849 4 vs 5 0 -17.8503065 1

‘‘‘