

Proposal for Base Flow In Saluda River Basin

Alternative 1

20% of unimpaired MADF

This alternative modifies and simplifies alternative 3 based on information presented to the Saluda River Basin Council that did not indicate varied flows were needed to maintain aquatic diversity in the river basin.

Alternative 2

unimpaired 7Q1

Given that a river may not naturally maintain 20% of MADF, this minimalistic alternative merely maintains annual minimum flow without consideration for aquatic diversity or recreational needs.

Alternative 3

0% of the unimpaired mean annual daily flow for the months of January through April; 30% of the unimpaired mean annual daily flow for the months of May, June, and December; and 20% of the unimpaired mean annual daily flow for the months of July through November.

The most complicated of the alternatives presented here, this alternative is based on existing SC code of law definitions.

Section 49-4-20 of SC Code of Law includes:

(14) "Minimum instream flow" means the flow that provides an adequate supply of water at the surface water withdrawal point to maintain the biological, chemical, and physical integrity of the stream taking into account the needs of downstream users, recreation, and navigation and that flow is set at forty percent of the mean annual daily flow for the months of January, February, March, and April; thirty percent of the mean annual daily flow for the months of May, June, and December; and twenty percent of the mean annual daily flow for the months of July through November for surface water withdrawers as described in Section 49-4-150(A)(1). For surface water withdrawal points located on a surface water segment downstream of and influenced by a licensed or otherwise flow controlled impoundment, "minimum instream flow" means the flow that provides an adequate supply of water at the surface water withdrawal point to maintain the biological, chemical, and physical integrity of the stream taking into account the needs of downstream users, recreation, and navigation and that flow is set in Section 49-4-150(A)(3).

This defines "minimum instream flow" both quantitatively (40% of MADF, or mean annual daily flow, for January through April, 30% of MADF for May, June, and December, and 20% of MADF for July through November) and qualitatively ("provides an adequate supply of water at the surface water withdrawal point to maintain the biological, chemical, and physical integrity of the stream taking into account the needs

of downstream users, recreation, and navigation”). Whereas it could be debated if the quantitative definition meets the qualitative goal, this proposal suggests that the Saluda RBC should set the goal of maintaining the biological, chemical, and physical integrity of streams taking into account the needs of downstream users, recreation, and navigation by implementing an existing legal definition as a surface water condition wherever appropriate--perhaps in all cases not including impoundments.

To avoid cyclical reductions of the surface water definition over time, the unimpaired mean annual daily flow is proposed. This prevents water withdrawals from reducing the mean annual daily flow reducing the surface water condition allowing further withdrawals further reducing the mean annual daily flow ad nauseam.