Let $R$ be a local Cohen-Macaulay ring and let $I$ be an $R$-ideal. The Rees algebra $R_I$, the associated graded ring $G$ and the fiber cone $F$ are graded algebras that reflect various algebraic and geometric properties of the ideal $I$. The Cohen-Macaulay property of $R$ and $G$ has been extensively studied by many authors, but not much is known about the Cohen-Macaulayness of $F$. We give an estimate for the depth of $R$ and $G$ when these rings fail to be Cohen-Macaulay. We assume that $I$ has small reduction number, sufficiently good residual intersection properties, and satisfies local conditions on the depth of some powers. We also study the Serre properties of $R$ and $G$ and how they are related. In particular the $S_1$ property for $G$ leads to criteria for when $I^n = I^{(n)}$, where $I^{(n)}$ is the $n$-th symbolic power of $I$. We prove a quite general theorem on the Cohen-Macaulayness of $F$ that unifies and generalizes several known results. We also relate the Cohen-Macaulay property of $F$ to the Cohen-Macaulay property of $R$ and $G$. 
