A complete analysis of the conservation laws of the family of nonlinear equations

$$\alpha(u_t + 3uu_x) + \beta(u_{txx} + 2u_x u_{xx} + uu_{xxx}) - \gamma u_{xxx} = 0.$$

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We study and classify the conservation laws of the combined nonlinear KdV, Camassa-Holm, Hunter-Saxton and the inviscid Burgers equation which arises in , inter alia, shallow water equations. It is shown that these can be obtained by variational methods but the main focus of the presentation is the construction of the conservation laws as a consequence of the interplay between symmetry generators and 'multipliers', particularly, the higher-order ones.