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This reply provides responses to each point raised in the discussion paper. Our reply relies on findings reported in several publications (Ahmadi et al. 2015, 2014; Akbari-Alashti et al. 2014; Ashofteh et al. 2013a, c, 2015a, b, b; Beygi et al. 2014; Bolouri-Yazdeli et al. 2014; Bozorg-Haddad et al. 2013a, 2014b, 2015a, b, b, c; Farhangi et al. 2012; Fallah-Mehdipour 2013e, b, a, 2014; Jahandideh-Tehrani et al. 2015; Orouji et al. 2013, 2014b, a; Shokri et al. 2013, 2014; Soltanjalili et al. 2013), which are summarized briefly in this reply. These are our responses to the discussers' comments:

1. The discussion called attention to the precalibration process or specification of algorithmic parameters when applying evolutionary algorithms (EAs) in various problems such as reservoir operation (Aboutalebi and Bozorg-Haddad 2015; Aboutalebi et al. 2015), hydrograph routing (Aboutalebi et al. 2016a), simulation of pollutants, and water-quality monitoring network (Aboutalebi et al. 2016b), among others. The discussers' statement is true in that the number of EA parameters is an important matter, and sometimes the number of EA parameters is larger than the number of model parameters that must be calibrated. However, EAs are not the only algorithms that require specification of parameters. Gradient-based methods such as nonlinear programing also require specification of algorithmic parameters, among which are (1) the maximum numbers of iterations or the minimal convergence tolerances; (2) the initial estimate of the solution; and (3) the bounds on each decision variable, imposed by constraints. Therefore, the issue of algorithmic parameters is a general limitation for any solving method, not only the EAs.
2. The discussion states that there is lack of knowledge of the bounds of EA parameters, such as those of the support vector machine (SVM), which affects the calibration of the Muskingum models. There are many studies that provide information about the tuning of SVM parameters with precise recommendations for bounds on its parameters. Furthermore, the calibration of SVM is different from the calibration of the Muskingum model parameters. The upper and lower bounds of EA parameters can be determined with a simple trial and error method, and the determination is dependent on the experience of those who implement SVM or other EAs. Therefore, employing recommendations found in the literature, prior experience, understanding of the optimization problem, and trial and error provide clues on how to set the upper/lower bounds of algorithmic parameters. More information about this matter can be found in the studies of Aboutalebi and Garousi-Nejad (2015), Bozorg-Haddad et al. (2013a, 2014a), and Garousi-Nejad et al. (2015).
3. The last issue raised in the discussion is about a new metaheuristic algorithm called teaching-learning based optimization (TLBO), which is said to be free of parameters. Upon review of the TLBO, the authors concluded that TLBO is a not a parameter-free algorithm. Instead, TLBO has similar parameters as other population-based algorithms. These include the maximum number of iterations, the bounds on the decision variables, and the number of generated populations, which are found in any EA such as the genetic algorithm (GA), TLBO, and others. Having stated this, one must realize that it is worthwhile to decrease the dependency of EAs on their parameters. For example, Garousi-Nejad and Bozorg-Haddad (2015) and Garousi-Nejad et al. (2016b, a) proposed that a modified version of the firefly algorithm benefited from fewer parameters than its original version, and evaluated the performance of the former version with single- and multireservoir systems.

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