Table A1.7 Illustrative Input DIC Unique to the Surface Impoundment Module in 3MRA-HWIR

Variable Count	Dictionary Description	Dictionary Name		Privilege								
26	SI	SI		3								
Parameter	Description	Dimension	Primary Key	DataType	Scalar	Min	Max	Measure	Units	Stochastic*	Preposition	Indexing Parameter(s)
bio_yield	biomass yield	0	FALSE	FLOAT		0	1		g/g	TRUE		
C_in	chemical concentration (influent)	0	FALSE	FLOAT		0	1000000		mg/L	TRUE		
CBOD	BOD (influent)	0	FALSE	FLOAT		0	1		g/cm3	TRUE		
d_imp	impeller diameter	0	FALSE	FLOAT		0	200		cm	TRUE		
d_setpt	fraction of SI occupied by sediments (max.)	0	FALSE	FLOAT		0.1	0.99		fraction	TRUE		
d_wmu	depth of wmu	0	FALSE	FLOAT		0.3	46		m	TRUE		
dmeanTSS	particle diameter (mean, waste suspended solids)	0	FALSE	FLOAT		0	0.01		cm	TRUE		
EconLife	economic life of a tank/SI	0	FALSE	INTEGER		0	100		year	TRUE		
F_aer	fraction surface area-turbulent	0	FALSE	FLOAT		0	1		fraction	TRUE		
focW	fraction organic carbon (waste solids)	0	FALSE	float		0	1		mass fraction	TRUE		
fwmu	fraction hazardous waste in WMU	0	FALSE	float		0	1		mass fraction	TRUE		
hydc_sed	saturated hydraulic conductivity (sediment layer)	0	FALSE	FLOAT		0	0.001		m/s	TRUE		
J	oxygen transfer factor	0	FALSE	FLOAT		2.9	3		lb O2/h-hp	TRUE		
k_dec	digestion (sediments)	0	FALSE	FLOAT		0	0.001		1/s	TRUE		
kba1	biologically active solids/total solids (ratio)	0	FALSE	FLOAT		0	1		unitless	TRUE		
MWt_H2O	molecular weight (liquid [water])	0	FALSE	FLOAT		18	18		g/mol	TRUE		
n_imp	impellers/aerators (number)	0	FALSE	INTEGER		0	66		unitless	TRUE		
NumEcon	number of economic lifetimes	0	FALSE	INTEGER		1	5			TRUE		
O2eff	oxygen transfer correction factor	0	FALSE	FLOAT		0.8	0.85		unitless	TRUE		
Powr	impellers/aerators (total power)	0	FALSE	FLOAT		0	5000		hp	TRUE		
Q_wmu	volumetric flow rate (tank)	0	FALSE	FLOAT		1.00E-20	10		m3/s	TRUE		
rho_l	density (liquid [water])	0	FALSE	FLOAT		0.96	1.5		g/cm3	TRUE		
rho_part	solids density	0	FALSE	FLOAT		1	5		g/cm3	TRUE		
TSS_in	total suspended solids (influent)	0	FALSE	FLOAT		0	1		g/cm3	TRUE		
w_imp	impeller speed	0	FALSE	FLOAT		0	260		rad/s	TRUE		
* Assumed for illustrative purposes. These parameters were not all necessarily randomly modified as part of the 3MRA-HWIR assessment.												