WaterSense New Home Specification: Water Budget Tool (V 1.02) This water budget tool shall be used to determine if the designed landscape meets Criteria 4.1.1 of the specification. Please refer to the WaterSense Water Budget Approach for additional information.						
Your Name: Builder Name: Lot Number/Street Address: City, State, Zip Code: Peak Watering Month: Obtain from Water Budget Dat Is an irrigation system being in	et Address: bode: Month: July er Budget Data Finder at www.epa.gov/watersense/nhspecs/wb_data_finder.html					
This worksheet determines the baseline and the landscape water allowance (LWA) for a site based on its peak watering month. The baseline is the amount of water required by the site during the peak watering month if watered at 100 percent of reference evapotranspiration (ET _o). The following formula is used to calculate the baseline:						
Baseline =	$ET_o \times A \times C_u$	Where: $ET_o = Local reference evapotranspiration (inches/m A = Landscaped area (square feet) C_u = Conversion factor (0.6233 for results in gallons)$	onth) /month)			
The LWA is the water allotmer $LWA=0.7$	nt for the site. The following formu $70 imes Baseline$	ila is used to calculate the LWA: Where: LWA = Landscape water allowance (gallons/month) Baseline = ET _o x landscaped area x 0.6233				
To calculate the Baseline and LWA for a site, enter the designed landscaped area and average monthly reference evapotranspiration for the site's peak watering month. (Enter data in white cells only.) STEP 1A - ENTER THE LANDSCAPED AREA (A) 19,927 Area of the designed landscape (square feet) STEP 1B - ENTER THE AVERAGE MONTHLY REFERENCE EVAPOTRANSPIRATION (ET_o) 6.03 Average monthly reference ET (inches/month) for the site's peak watering month Obtain from Water Budget Data Finder at www.epa.gov/watersense/nhspecs/wb_data_finder.html						
OUTPUT - BASELINE FOR THE SITE 74,900 Monthly baseline (gallons/month) based on the site's peak watering month OUTPUT - WATER ALLOWANCE FOR THE SITE 52,430 Monthly landscape water allowance (gallons/month) based on the site's peak watering month						

Next Step: Click on the next tab labeled Part 2 - LWR to calculate the landscape water requirement.

(our Name:		Kenneth M. Lo	nia. Cornerstono	Land Consultante In	2		T	4
Builder Name:		Fitzgeralds Ge	neral Store/Priva	te Parking Lot				
ot Number/St City, State. Zin	reet Address: Code:	110 Southville Southborough	Road MA 01772				+	EPA
Pook Motoria	Month	July					T	WaterSense
-eaк watering	wonth:	July					ļ	
s an irrigation	system being installed on th	nis site?	yes					
This worksheet determines the monthly landscape The monthly LWR is the water requirement specific to the designed landscap The following formula is used to calculate the LWR for each hydrozone: $LWR_{H} = \frac{1}{DU_{LQ}} \times [(ET_{o} \times K_{L}) - R_{a}] \times [(ET_{o} \times K_{L}) - R_{a}]$ To calculate the LWR for the site, enter the information requirements			e water require ape. The sum of the l $ imes A imes C_u$	ment (LWR) for WRs for each hydroz Where: LWR _H = Landscape DU _{LG} = Lower quarte ET ₀ = Local reference R _a = Anlowable rainfa A = Area of the hydr C _u = Conversion fact the site's peak w	r a site based one equals the site L' water requirement fo er distribution uniform se evapotranspiration fificient for the type of II, designated by Wat ozone (square feet) tor (0.6233 for results vatering month. (on its peak WR. the hydrozone ity (inches/month) plant in that hys erSense as 25% in gallons/mont	(gallons/month) (gallons/month) 5 of average peak monthly rainfall (R) h)	
TEP 2A - E 3.26 Datain from W TEP 2B - C Enter the are Choose the Choose the	Average monthly rain ater Budget Data Finder at COMPLETE TABLE 1 E as of the hydrozone (sq plant type from the drop irrigation type from the to pdecape Water Port	E MONTHLY I fall (inches/r www.epa.gov/v BELOW (enter uare feet). The odown list (sour dropdown list	RAINFALL (R) month) for the watersense/nhsp or data in white e total area m urce data is dis (source data is	AT THE SITE FC e site's peak wate ecs/wb data_finder.h te cells only) ust equal the lands splayed in Table 2) s displayed in Table	R THE PEAK WA ring month mi scaped area entered e 3; guidance is di	TERING MONTH ed in Step 1A. splayed in Table 4	IDENTIFIED	IN PART 1
able I. Lar	Hydrozone/Landscape	Plant Type	or Landscape	Landscape		Distribution	LWR _H	1
Zone	Feature Area (sq. ft.)	Fea	ature	Coefficient (KL)	Irrigation Type	Uniformity (DULQ)	(gal/month)	
1	1,573 4,283	Groundcover - Medi	rascape um water requirement	0.5	No Irrigation Drip - Press Comp	90%	6,526	
3	982	Trees - Medium	water requirement	0.5	Drip - Press Comp	90%	1,496	
5	812	Groundcover - Medi	uscape um water requirement	0.5	Drip - Press Comp	90%	1,237	
6 7	2,355 2,734	Turfgrass - Mediur Permeable Har	n water requirement rdscape	0.7	Fixed Spray No Irrigation	65%	7,692	
8	1,211	Turfgrass - Mediur	m water requirement	0.7	Fixed Spray	65%	3,955	
9 10	2,000	Turfgrass - Mediur Turfgrass - Mediur	m water requirement m water requirement	0.7	Fixed Spray Fixed Spray	65%	6,533 7,588	
11	331	Permeable Ha	rdscape		No Irrigation		-	
13							-	
14							-	
Total Area =	19,927	İ		Landscape Wa	ter Requirement for	the Site (gal/month)	35,027	
Table 2. Pla	Int Type or Landscape	Feature and	Associated	Landscape Coeff	icient	Table 3. Distrib	ution Uniform	nity
			KL			Irrigation Type	DU(LQ) or EU*	
Plant Type	e or Landscape Feature	Low	Water Require	ments High		Drip - Standard	70%	
Frees		0.2	0.5	0.9		Fixed Spray	65%	
Snrubs Groundcover		0.2	0.5	0.7		Micro Spray Rotor	70%	
Turfgrass	Notor Footure	0.6	0.7	0.8		No Irrigation	NA	
Permeable Ha	rdscape		0.8			Lower quarter distribution and emission uniformity (E	uniformity (DU _{LQ}) ap U) applies to drip/mi	pries to sprinkler zones croirrigation zones.
Nonvegetated	Softscape LEED for Homes Bating System 20	08.	0		J	Source: (The Irrigation Ass Landscape Irrigation Sche	ociation, October 20 duling and Water Ma	01) in Inagement, IA 2005.
Table 4				with Instantion				
able 4. Ap	propriate irrigation Ty	pes - Landso	THEN THE IRI	RIGATION TYPE CAN	BE:	1		
IF TH	E PLANT TYPE IS:	Drip - Standard	Drip - Press Comp	Fixed Spray	Micro Spray*			
Frees		x	x		x			
Shirubs		x	x	~	x			
Groundcover		n turfgrass if it meets	x s the definition of micr	oirrigation system, which ac	cording to the WaterSense	New Home Specification is	"The frequent applic	cation of small quantities of water on or below the soil
Groundcover Furfgrass Micro spray may o	only be used on vegetation other that	or applicators placed	d along a water delive less than 30 gallons p	ry line. Microirrigation encom er hour."	passes a number of method	is or concepts, such as bub	bler, drip, trickle, mis	st or spray, and subsurface irrigation. For the purpose
Groundcover Furfgrass Micro spray may Irops, tiny streams pecification, micro	only be used on vegetation other that or miniature spray through emitters pirrigation includes emission devices	that have flow rates		with a set fundament and	Systems			
Arroundcover Groundcover Furfgrass Micro spray may of trops, tiny streams pecification, micro Table 5. An	only be used on vegetation other than or miniature spray through emitters pirrigation includes emission devices	that have flow rates	aped Areas	vitnout irridation			ALL BE:	
Groundcover Furfgrass Micro spray may 4 frops, tiny streams pecification, micro Table 5. Ap	only be used on vegetation other that s or miniature spray through emitters tririgation includes emission devices propriate Irrigation Ty	that have flow rates	caped Areas v	without irrigation	THEN THE IF	RIGATION TYPE SH		
Groundcover Groundcover Jurfgrass Micro spray may trops, tiny streams pecification, micro Table 5. Ap F THE PLANT	only be used on vegetation other that s or miniature spray through emitters irrigation includes emission devices propriate Irrigation Ty TYPE OR LANDSCAPE FI	that have flow rates rpes - Landso EATURE IS:	caped Areas v	without irrigation	THEN THE IF	Fixed Spray	No Irrigation	
Groundcover Groundcover (urfgrass) Micro spray may trops, tiny streams pecification, micro Table 5. App F THE PLANT Frees, Shrubs,	only be used on vegetation other that or miniature spray through emitters strigation includes emission devices propriate Irrigation Ty TYPE OR LANDSCAPE FI or Groundcover with Low V	that have flow rates PPES - Landso EATURE IS: Vater Requirement	caped Areas v ents ($K_L = 0.2$)	without irrigation	THEN THE IF Drip - Standard x	Fixed Spray	No Irrigation	
Groundcover Furfgrass Mero spray may u props, tiny streams pecification, micro Table 5. App F THE PLANT Frees, Shrubs, Frees, Shrubs,	only be used on vegetation other that or miniature sprath through entities stringation includes emission devices propriate Irrigation Ty TYPE OR LANDSCAPE FI or Groundcover with Mediu or Groundcover with Mediu Dw. Medjium, or Link Mediu	that have flow rates Ppes - Landso EATURE IS: Vater Requirement im or High Wate or Requirements	ents ($K_L = 0.2$) r Requirements ($(K_L = 0.2)$	K _L > 0.2)	THEN THE IF Drip - Standard x	Fixed Spray	No Irrigation	
Groundcover Furfgrass Micro spray may tr props, tiny streams pecification, micro Table 5. App F THE PLANT Frees, Shrubs, Furfgrass with Pool, Spa, or V	only be used on vegetation other that or miniature sprath through entitlers wrigation includes emission devices propriate Irrigation Ty TYPE OR LANDSCAPE FI or Groundcover with Low V or Groundcover with Mediu Low, Medium, or High Wate Vater Feature	that have flow rates PDES - Landso EATURE IS: Vater Requirements or High Wate er Requirements	ents ($K_L = 0.2$) r Requirements ($K_L > 0.2$)	K _L > 0.2)	THEN THE IF	Fixed Spray	No Irrigation	
Arroundcover Furfgrass Micro spray may froms, pecification, micro Fable 5. App F THE PLANT Frees, Shrubs, Frees, Shrubs, Frees, Shrubs, Curfgrass with Pool, Spa, or V Permeable Hau Nonvegetated	only be used on vegetation other that or miniature sprath through entithers stringation includes emission devices propriate Irrigation Ty TYPE OR LANDSCAPE FI or Groundcover with Low V or Groundcover with Mediu Low, Medium, or High Wate Vater Feature rdscape Softscane	that have flow rates PPES - Landso EATURE IS: Vater Requirements im or High Wate er Requirements	ents ($K_L = 0.2$) r Requirements ($(K_L > 0.2)$		THEN THE IF	Fixed Spray	No Irrigation	
Arroundcover Furfgrass Micro spray may trops, tiny streams pecification, micro Table 5. App F THE PLANT Frees, Shrubs, Frees, Shrubs, Frees, Shrubs, Urufgrass with Pool, Spa, or V ^a ermeable Hai Vonvegetated Please see additio	only be used on vegetation other that or miniature sprath through entitiers stringation includes emission devices propriate Irrigation Ty TYPE OR LANDSCAPE FI or Groundcover with Low V or Groundcover with Mediu Low, Medium, or High Wate Vater Feature Vater Feature discape Softscape an information in the WaterSerse V	that have flow rates Pes - Landso EATURE IS: Vater Requirements Vater Budget Approx	caped Areas v ents ($K_L = 0.2$) r Requirements ($(K_L > 0.2)$) ch for landscapes ins	$K_L > 0.2$)	THEN THE IF	Fixed Spray	No Irrigation	
Arroundcover Turfgrass Mero spray may frops. tiry streams pecification, micro Table 5. App F THE PLANT Frees, Shrubs, Turfgrass with Yool, Spa, or V Permeable Han Vonvegetated Please see addition	only be used on vegetation other that or miniature sprati through entitiers propertiate irrigation Ty TYPE OR LANDSCAPE FI or Groundcover with Low V or Groundcover with Mediu Low, Medium, or High Wate Vater Feature Vater Feature Softscape Softscape and Information in the WaterSense V	that have flow rates PDES - Landso EATURE IS: Vater Requirements or High Wate or Requirements Water Budget Approa	ents ($K_L = 0.2$) r Requirements ($(K_L > 0.2)$) ch for landscapes ins	$K_{L} > 0.2)$	THEN THE IF	Fixed Spray	No Irrigation	
Siroundcover Turfgrass Microspraymy fros. Ity streams peelication, micro Table 5. App F THE PLANT Trees, Shrubs, Trees, Shrubs, Tees, Shrubs, Turfgrass with Jool, Spa, or V Permeable Halay Parmeable Halay Permeable Halay Press see addition	only be used on vegetation other that or miniature sprathrough entities stringation includes emission devices propriate Irrigation Ty TYPE OR LANDSCAPE FI or Groundcover with Low V or Groundcover with Mediu Low, Medium, or High Wate Vater Feature Vater Groupe Softscape nal information in the WaterSense V WATER REQUIREMEN	that have flow rates rpes - Landsco EATURE IS: Vater Requirements m or High Wate rr Requirements Water Budget Approx T FOR THE S	ents ($K_{L} = 0.2$) or Requirements ($(K_{L} > 0.2)$ ($K_{L} > 0.2$)	$K_L > 0.2)$	THEN THE IF	Fixed Spray	No Irrigation	

WaterSense New H This water budget tool shal Please refer to the WaterSe Your Name: Builder Name: Lot Number/Street Address: City, State, Zip Code: Peak Watering Month:	ome Specification: Water Budget Tool (V 1 I be used to determine if the designed landscape meets Criticities Inse Water Budget Approach for additional information. Kenneth M. Lania, Cornerstone Land Consultants, Inc. Fitzgeralds General Store/Private Parking Lot 110 Southville Road Southborough, MA 01772	.02) eria 4.1.1 of the specification.	PA Vater Sense				
is an inigation system being i	yes						
This worksheet determines if the designed landscape meets the water budget. If the landscape water requirement is LESS than the landscape water allowance, then the water budget criterion is met. If the landscape water requirement is GREATER than the landscape water allowance, then the landscape and/or irrigation system needs to be redesigned to use less water. STEP 3A - REVIEW THE LWA AND LWR FROM PART 1 AND PART 2 LWA 52,430 (gallons/month) LWR 35,027 (gallons/month) STEP 3B - REVIEW THE TOTAL AREA OF TURFGRASS* IN THE DESIGNED LANDSCAPE FROM STEP 2B The designed landscape contains 7,889 square feet of turfgrass.* This is 40% of the landscaped area. "This includes the area of any pools, spas, and/or water features, designated by WaterSense to be counted as turfgrass.							
OUTPUT - DOES THE DESIGNED LANDSCAPE MEET THE WATER BUDGET? YES If YES, then the water budget criterion is met. If NO, then the landscape and/or irrigation system needs to be redesigned to use less water.							
The designed landscape water requirement is a 53% reduction in water use from the baseline calculated in Part 1.							