

APPENDIX F. IN-LIEU FEE SPREADSHEET TUTORIAL

The following examples explain how to use the In-Lieu Fee (ILF) calculation spreadsheet. The color green indicates cells where data input is required while cells without color are locked from user input and will perform automatic calculations. Please follow examples below for a brief tutorial on how to use the spreadsheet.

SINGLE-LOT DEVELOPMENT

Example 1. The first example shows the user how to input data into the ILF calculation spreadsheet for disturbance of Xeroriparian Class A habitat on a subdivided lot.

Step 1: Verify the class of Regulated Riparian Habitat (RRH) to be disturbed and then select the correct cells for data input.

Calculating In-Lieu Fee Costs for Single-lot Development
Shaded fields are editable - Enter value in Acres

	A	B	C	D	E	F	G	H
3								
4		Xeroriparian Class A Habitat (XA)**				Option to basic requirement (Xeroriparian)****		
5	Total mapped habitat onsite		1.00	Acre(s)				
6	Area of disturbed RRH		1.00	Acre(s)				
7	Area of mitigation		1.00	Acre(s)				
8	Total number of trees required (75 trees/ac)	75	75	Trees	60	Trees		
9	Total number of shrubs required (90 shrubs/ac)	90	90	Shrubs	72	Shrubs		
10								
11	Xeroriparian Class B Habitat (XB)**							
12	Total mapped habitat onsite			Acre(s)				
13				Acre(s)				
14			0.00	Acre(s)				
15		60	0	Trees	0	Trees		

Step 2: After inputting total acreage of RRH on the property (cell C5) and total disturbance of RRH (cell C6), scroll to the bottom of the spreadsheet and enter additional data to complete the calculation.

ILF Calculation

29	Total number of trees required (30 trees/ac)	30	0	Trees	0	Trees		
30	Total number of shrubs required (x shrubs/ac)*	50	0	Shrubs	0	Shrubs		
31								
32	ILF Calculation							
33	15-gallon trees	38		\$3,040.00				
34	5-gallon trees	37		\$925.00				
35	5-gallon shrubs	45		\$1,035.00				
36	1-gallon shrubs	45		\$270.00				
37	Hydroseed	1.00	Acre(s)	\$885.00				
38	Irrigation	1.00	Acre(s)	\$1,500.00				
39	5-year maintenance***	1.00	Acre(s)	\$610.00				
40	Total Cost			\$8,265.00				

Average Costs (Costs shown for plants do not include installation costs)	15-gallon tree	5-gallon tree	5-gallon shrub	1-gallon shrub	Seeding (per acre)	Irrigation (per acre)	5-year maintenance (per acre)
	\$80	\$25	\$23	\$6	\$885	\$1,500	\$610

*determined by onsite plant survey.
 **Guideline plant density requirements have been provided. The applicant may choose to perform an onsite plant survey in accordance with TECH-116 to determine plant density.
 ***Average cost based on annual plant water requirements, plant replacement @ 5% over five years, and invasive species control (cost for herbicide only).
 ****Option to basic requirement for Xeroriparian Classes A-D: Reduce total plant quantity by 20% if 100% 15 gallon trees and 100% 5 gallon shrubs are used.

Step 3: The user will input plant quantity data calculated in cells C8 and C9 into cells B33 through B36. Divide plant quantities evenly between 15 gallon and 5 gallon size for trees and 5 gallon and 1 gallon size for shrubs unless "Option to Basic Requirements" was chosen. If this option is chosen, select data from cells E8 and E9 and input into cells B33 and B35 only (all 15 gallon size trees and 5 gallon size shrubs). Insert "Area

of mitigation" value from cell C7 into cells B37 through B39. The spreadsheet will automatically calculate the ILF from the "Average Costs" table (cells B43 through H43).

Example 2. The second example shows the user how to input data into the ILF calculation spreadsheet for disturbance of Class H habitat on a subdivided lot.

Step 1: Verify the class of RRH to be disturbed and then select the correct cells for data input.

	A	B	C	D	E	F	G	H
Calculating In-Lieu Fee Costs for Single-lot Development								
Shaded fields are editable - Enter value in Acres								
4								
5	Class H or IRA w/ Underlying Class H Habitat (H or IRA/H)**				Option to basic requirement (Xeroriparian)****	Option to basic requirement (Class H)****		
6	Total mapped habitat onsite		1	Acres(s)				
7	Area of disturbed RRH		1	Acres(s)				
8	% of mapped habitat disturbed		100%	Acres(s)				
9	Area of mitigation		1.50	Acres(s)				
10	Total number of trees required (90 trees/ac)	90	135	Trees	na	162	Trees	
11	Total number of shrubs required (100 shrubs/ac)	100	150	Shrubs	na	180	Shrubs	
12								
13	IRA w/ Underlying Xeroriparian Class A Habitat (IRA/XA)**							
14	Total mapped habitat onsite			Acres(s)				
15	Area of disturbed RRH			Acres(s)				
16	% of mapped habitat disturbed		#DIV/0!	Acres(s)				
17	Area of mitigation		0.00	Acres(s)				

Step 2: After inputting total acreage of RRH on the property (cell C6) and total disturbance of RRH (cell C7), scroll to the bottom of the spreadsheet and enter additional data to complete the calculation. Please note that for Class H habitat, the area of disturbance is mitigated at a ratio of 1:1.5.

47	15-gallon trees	135		\$10,800.00					
48	5-gallon trees	0		\$0.00					
49	5-gallon shrubs	75		\$1,725.00					
50	1-gallon shrubs	75		\$450.00					
51	Hydroseed	1.50	Acres(s)	\$1,327.50					
52	Irrigation	1.50	Acres(s)	\$2,250.00					
53	5-year maintenance for Xeroriparian****	0.00	Acres(s)	\$0.00					
54	5-year maintenance for H****	1.50	Acres(s)	\$1,575.00					
55	Total Cost			\$16,552.50					
56									
57	Average Costs (Costs shown for plants do not include installation costs)	15-gallon tree	5-gallon tree	5-gallon shrub	1-gallon shrub	Seeding (per acre)	Irrigation (per acre)	Class H 5-year maintenance (per acre)	
58		\$80	\$25	\$23	\$6	\$885	\$1,500	\$1,050	
59								\$610	
60	*Density determined by onsite plant survey.								
61	**Guideline plant density requirements have been provided. The applicant may choose to perform an onsite plant survey in accordance with TECH-116 to determine plant density.								
62	***Average cost based on annual plant water requirements, plant replacement @ 5% over five years, and invasive species control (cost for herbicide only).								
63	****Option to basic requirement for Xeroriparian Classes A-D: Reduce total plant quantity by 20%; if 100% 15 gallon trees and 100% 5 gallon shrubs are used.								
64	****Option to basic requirement for Class H: Increase total plant quantity by 20%; if 50% 15 gallon/50% 5 gallon trees are used and 100% 1 gallon shrubs are used.								
65									
66									

Step 3: The user will input plant quantity data calculated in cells C10 and C11 into cells B47, B49, and B50. If "Option to Basic Requirements" is chosen allowing for 50% 15 gallon/50% 5 gallon size trees and 100% 1 gallon size shrubs, select values from cells F10 and F11 and input into cells B47 through B50. Insert "Area of mitigation" value from cell C9 into cells B51, B52 and B54. The spreadsheet will automatically calculate the ILF from the "Average Costs" table (cells B58 through H58).

COMMERCIAL AND SUBDIVISION DEVELOPMENT

Example 3. The third example shows the user how to input data into the ILF calculation spreadsheet for disturbance of Xeroriparian Class A habitat due to projects undergoing the development review process.

Step 1: Verify the class of RRH to be disturbed and then select the correct cells for data input.

Input total acreage of disturbance

Calculating In-Lieu Fee Costs for Commercial and Subdivision Development									
Shaded fields are editable - Enter value in Acres									
Xeroriparian Class A Habitat (XA)**					Option to basic requirement (Xeroriparian)****				
5	Total mapped habitat onsite		5.00	Acres(s)					
6	Area of disturbed RRH		1.00	Acres(s)					
7	% of mapped habitat disturbed		20%	Acres(s)					
8	Area of mitigation		1.00	Acres(s)					
9	Total number of trees required (75 trees/ac)	75			60	Trees			
10	Total number of shrubs required (90 shrubs/ac)	90			72	Shrubs			
Xeroriparian Class B Habitat (XB)**									
				Acres(s)					
				Acres(s)					
			#DIV/0!	Acres(s)					
			0.00	Acres(s)					

Input total acreage of mapped RRH on property

option to basic requirement

Input quantity of trees and shrub per acre

Step 2: After inputting total acreage of RRH on the property (cell C5) and total disturbance of RRH (cell C6), scroll to the bottom of the spreadsheet and enter additional data to complete the calculation.

32	Total number of shrubs required (x shrubs/ac)		90	Shrubs					
33									
34	ILF calculation								
35	15-gallon trees	38			\$2,828.89				
36	5-gallon trees	37			\$1,014.86				
37	5-gallon shrubs	45			\$1,015.71				
38	1-gallon shrubs	45			\$528.75				
39	Hydroseed	1	Acres(s)		\$3,485.00				
40	Irrigation	1	Acres(s)		\$1,616.46				
41	5-year maintenance	1	Acres(s)		\$2,424.69				
42	Monitoring Report	3	Years		\$4,500.00				
43	Total Cost				\$17,414.37				
44									
45	Average Costs (Costs shown for plants are installed costs)	15-gallon tree	5-gallon tree	5-gallon shrub	1-gallon shrub	Hydroseed (per ac)	Irrigation (per acre)*	5-year maintenance (per acre)*	5-year monitoring (per acre per year)
46		\$74	\$27	\$23	\$12	\$3,485	see notes	see notes	\$1,500
47									
48	*determined by onsite plant survey.								
49	been provided. The applicant may choose to perform an onsite plant survey in accordance with TECH-116 to determine plant density.								
50	Classes A-D: Reduce total plant quantity by 20%; if 100%: 15 gallon trees and 100%: 5 gallon shrubs are used.								
51	Material (trees and shrubs)								
52	plant material (trees and shrubs)								
53									
54									
55									

Input plant quantities by size

costs are automatically calculated based on values provided in the "Average Costs" table

Input "Area of Mitigation"

Step 3: The user will input plant quantity data calculated in cells C9 and C10 into cells B35 through B38. Divide plant quantities evenly between 15 gallon and 5 gallon size for trees and 5 gallon and 1 gallon size for shrubs unless "Option to Basic Requirements" was chosen. If this option is chosen, select data from cells E9 and E10 and input into cells B35 and B37 only (all 15 gallon size trees and 5 gallon size shrubs). Insert "Area of mitigation" value from cell C8 into cells B39 through B41. The spreadsheet will automatically calculate the ILF from the "Average Costs" table (cells B46 through I46).

Example 4. The third example shows the user how to input data into the ILF calculation spreadsheet for disturbance of Class H habitat due to projects undergoing the development review process.

Step 1: Verify the class of RRH to be disturbed and then select the correct cells for data input.

Input quantity of trees and shrubs per acre

Input total acreage of mapped RRH on property

option to basic requirement

Input total acreage of disturbance

	B	C	D	E	F	G	H	I	J
Calculating In-Lieu Fee Costs for Commercial and Subdivision Development									
Shaded fields are editable - Enter value in Acres									
4	Class H or IRA w/ Underlying Class H Habitat (H or IRA/H)**			Option to basic requirement (Xeroriparian)****	Option to basic requirement (Class H)*****				
5	Total mapped habitat onsite	5.00	Acres(s)						
6	Area of disturbed RRH	1.00	Acres(s)						
7	% of mapped habitat disturbed	20%	Acres(s)						
8	Area of mitigation	1.50	Acres(s)						
9	Total number of trees required (90 trees/ac)	90	135	Trees	na	162	Trees		
10	Total number of shrubs required (100 shrubs/ac)	100	150	Shrubs	na	180	Shrubs		
11									
12	IRA w/ Underlying Xeroriparian Class A Habitat (IRA/XA)**								
13	Total mapped habitat onsite			Acres(s)					
14	Area of disturbed RRH			Acres(s)					
15	% of mapped habitat disturbed			#DIV/0!					
16	Area of mitigation			0.00					

Step 2: After inputting total acreage of RRH on the property (cell C5) and total disturbance of RRH (cell C6), scroll to the bottom of the spreadsheet and enter additional data to complete the calculation. Please note that for Class H habitat, the area of disturbance is mitigated at a ratio of 1:1.5.

Input "Area of Mitigation"

Input plant quantities by size

costs are automatically calculated based on values provided in the "Average Costs" table

46	15-gallon trees	135	\$10,050.00							
47	5-gallon trees	0	\$0.00							
48	5-gallon shrubs	75	\$1,692.86							
49	1-gallon shrubs	75	\$881.25							
50	Hydroseed	1.50	Acres(s)	\$5,227.50						
51	Irrigation	1.50	Acres(s)	\$3,787.23						
52	5-year maintenance	1.50	Acres(s)	\$5,680.85						
53	Monitoring Report	5	Years	\$11,250.00						
54	Total Cost			\$38,569.69						
55										
56	Average Costs (Costs shown for plants are installed costs)	15-gallon tree	5-gallon tree	5-gallon shrub	1-gallon shrub	Hydroseed (per acre)	Irrigation (per acre)¹	5-year maintenance (per acre)²	5-year monitoring (per acre per year)	
57		\$74	\$27	\$23	\$12	\$3,485	see notes	see notes	\$1,500	
58										
59	*Density determined by onsite plant survey.									
60	**Guideline plant density requirements have been provided. The applicant may choose to perform an onsite plant survey in accordance with TECH-116 to determine plant density.									
61	***Option to basic requirement for Xeroriparian Classes A-D. Reduce total plant quantity by 20% if 100% 15 gallon trees and 100% 5 gallon shrubs are used.									
62	****Option to basic requirement for Class H. Increase total plant quantity by 20% if 50% 15 gallon/50% 5 gallon trees are used and 100% 1 gallon shrubs are used.									
63	¹ Irrigation calculated as 30% the cost of plant material (trees and shrubs)									
64	² Maintenance calculated as 45% the cost of plant material (trees and shrubs)									
65										
66										

Step 3: The user will input plant quantity data calculated in cells C9 and C10 into cells B46, B48, and B49. If "Option to Basic Requirements" is chosen allowing for 50% 15 gallon/50% 5 gallon size trees and 100% 1 gallon size shrubs, select values from cells F9 and F10 and input into cells B46, B47, and B49. Insert "Area of mitigation" value from cell C8 into cells B50 through B52. The spreadsheet will automatically calculate the ILF from the "Average Costs" table (cells B57 through I57).