1. Opening (10 minutes) ([Link to guidance](https://stormwater.pca.state.mn.us/index.php?title=Guidance_and_examples_for_using_the_MPCA_Estimator) )
	1. Introductions (name, organization, how you will use the Estimator)
	2. Prequisites
		1. Downloaded the Estimator workbook
		2. Know the basic structure of the Estimator
		3. Know the basic functionality of the Estimator
2. Problem 1 – drainage is to the lake (45 minutes (25-10-10))
	1. Area 1: C and D soils
	2. Area 2: A and B soils
	3. Area 3: C soils up in watershed; A and B soils in lower watershed
	4. Must reduce phosphorus loading by 40 percent
	5. Report out



|  |  |
| --- | --- |
| **Land use** | **Acres** |
| **Area 1 (C/D soils)** | **Area 2 (A/B soils)** | **Area 3 (C/d up; B down)** |
| **Commercial** | 75 |   |   |
| **Industrial** | 80 |   | 110 |
| **Multi-use** | 975 | 275 | 235 |
| **High canopy res** | 200 | 200 | 80 |
| **Park** | 70 |   |   |
| **Agriculture** |   | 220 | 240 |
| **Transportation** | 75 |   | 60 |
| **Low canopy res** | 400 |   |   |

1. Discussion questions (15 minutes)
	1. What practices might result in a change in emc?
	2. What practices might result in a change in runoff coefficient?
	3. What conditions apply when removal efficiency changes?
	4. What conditions apply when fraction treated changes?
	5. What conditions apply when fraction infiltrated changes?
	6. What practices could be accounted for in Section 2 (Adjusted loads)?
2. Problem 2 (45 minutes (25-10-10))
	1. Subwatershed A: 300 acres of residential land use on D soils
	2. Subwatershed B: The entire area consists of mixed (multi-use) land use, but for calculation purposes we will use a separate worksheet in the Estimator for each of the following
		1. 70 acres draining to biofiltration
		2. 175 acres draining to underground infiltration
		3. 275 acres draining to sand filters
		4. 125 acres untreated runoff draining to Pond 1 plus drainage from the biofiltration and infiltration areas
		5. 125 acres draining to Pond 2 plus drainage from the sand filter area
		6. 175 acres draining to Pond 3 plus drainage from Pond 2
		7. 70 acres of direct runoff (untreated)
	3. Subwatershed C: 200 acres of ultra-urban land use on C soils (emc = 0.24 mg/L).
	4. Must reduce phosphorus loading by 40 percent
	5. Report out

