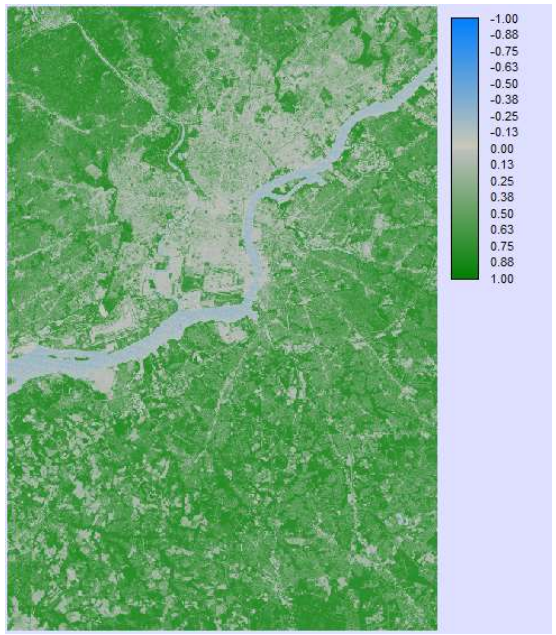
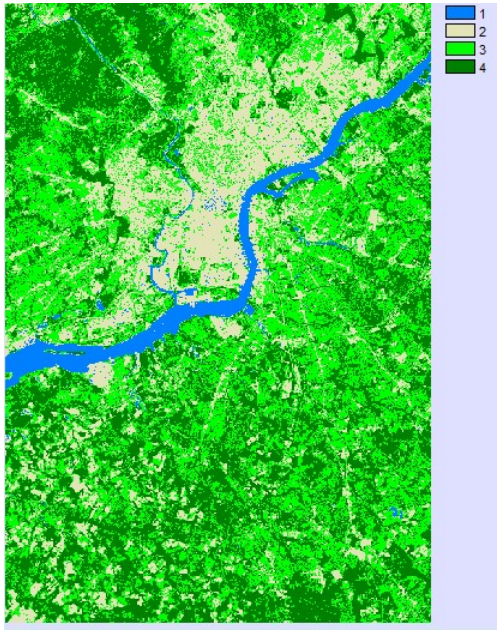
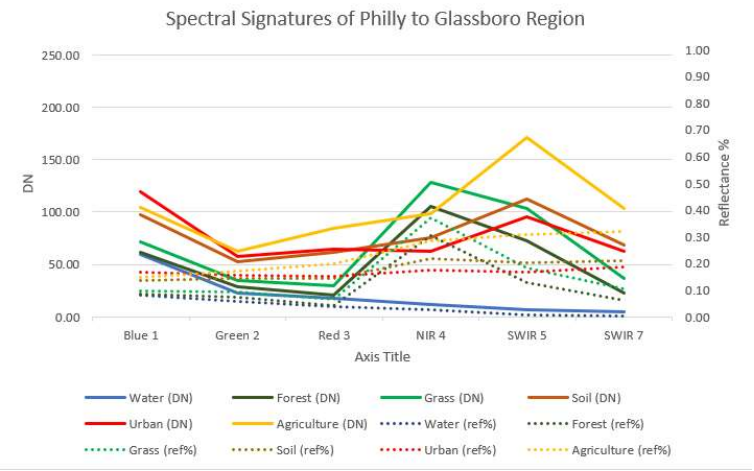
Lab: Atmospheric Correction + NDVI + Extraction







Average values extracted from PG 2009 ref NDVI macro modeler based on MyTargets2

Category		Average
	0	0.461420
(water)	1	-0.195489
(forest)	2	0.741670
(grass)	3	0.690408
(soil)	4	0.140921
(urban)	5	0.065302
(agriculture)	6	0.147733

Area on file: PG 2009 classified NDVI

Category	Square miles
1	21.867198
2	120.228760
3	206.234273
4	196.679340

SUMMARY OF OBSERVATIONS:

- Regarding the spectral signatures there is a noticeable difference among the DN values and reflectance values in Band 5 (SWIR) where values changed patterns especially with the soil, urban, and agriculture landcovers.
- Bands 1, 2, and 3 of the spectral signatures appear to have the most similar pattern between DN and reflectance values.
- NDVI appeared to have logical values for all landcovers. Water shows an average of -0.195489 with makes senses as water is expected to yield a negative value. With values closer to 1 representing high vegetation and those close to 0 representing the least vegetation, forest and grass also having logical values of 0.741670 and 0.690408 respectively. Moving towards landcovers with lower amounts of vegetation the numbers continue to decrease with agriculture = 0.147733, soil = 0.140921, and finally the lowest with urban at 0.065302.
- The least separation in NDVI values are between soil and agriculture landcover, and low separation between forest and grass landcover. The most separation appear to be in water as no other values fell in the negative. Urban landcover also does not share similar values with other land cover.

Gina DiMaio, Remote Sensing, 25 February 2022