

**Justification:** Current Urban Tree Canopy (UTC) science, techniques and analysis is technically complicated and requires education, experience, and tools that may not be readily available in some communities. In addition, the science of UTC (algorithms, software, hardware, and implementation tools) is rapidly changing and advancing.

**UTC Components:** UTC is more than remote sensing, GIS layers, or tree planting prioritization scenarios. For complete success, UTC must be a process that includes the implementation of many critical, interdependent steps (i.e. connected in a manner that affects the quality of the outcomes).

These include:

- 1) Clearly setting goals, objectives, and strategies of the UTC study/project<sup>1</sup>
- 2) Developing RFP language<sup>2</sup> that adequately describes UTC requirements (e.g. accuracy, MMU, metadata)
  - a) Adequately defining UTC attributes, specifications, and processes desired (e.g. tree canopy, low vegetation, grass vs bare soil, use of ancillary datasets – LiDAR, building footprints)
  - b) Defining succinct “base” deliverables<sup>3</sup> from the UTC process
  - c) Defining “products” desired from the “base” deliverables (e.g. planting prioritization, policy/ordinance language, reports on canopy and socio-economic relationships)
  - d) UTC process narrative and metadata requirements
  - e) The requirement for a QA/QC process<sup>4</sup> that occurs between the completion of the classification (i.e. production of “base” deliverables) and the production of RFP “products”
- 3) Technical review of the RFP responses
- 4) Implementation<sup>5</sup> strategies (i.e. how the “products” will be utilized in the community)
- 5) Implementation<sup>6</sup> and monitoring over time (i.e. using the deliverables and products to reach objectives)
- 6) The final “assembly” and archiving of the complete UTC project for inclusion into a national/regional/state UTC database

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<sup>1</sup> See *Setting Urban Tree Canopy Objectives* from Urban Forestry South, 2015

<sup>2</sup> See *Urban Tree Canopy Definitions & RFP Language* from Urban Forestry South, 2015

<sup>3</sup> See *Urban Tree Canopy Deliverables & Products to Meet Objectives* from Urban Forestry South, 2015

<sup>4</sup> See *An Urban Tree Canopy QA/QC Process* from Urban Forestry South, 2015

<sup>5</sup> See *Implementation: Achieving Objectives with Urban Tree Canopy* from Urban Forestry South, 2015

<sup>6</sup> As discussed and proposed by P. Rodbell, USDA FS, NA

Technical Assistance: Communities that lack the technical and personnel capacity to adequately address the critical UTC components discussed above can use technically qualified third party vendors/consultants to fill gaps or manage the entire UTC project from beginning to end.

Third party QA/QC is an absolute requirement for any UTC product assuming that the project design and definition have been adequately addressed.

However, outside technical assistance can be an option for any of the six steps identified: as a “guide” in setting objectives (1), developing definitions, specifications, and RFP language (2), getting the deliverables and products needed for the project, or to complete a successful implementation with review and monitoring processes established.