California Emission Estimator Model:

An Emerging Model to Evaluate Land Use Impacts and GHG Emissions

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New Partners For Smart Growth Conference

San Diego, California

What is CalEEMod?

- Quantifies criteria pollutants and GHG emissions
- 63 land use subcategories
- Applies approved emission factors, established methodology, and latest survey data

- Statewide model – all 35 air districts

What is CalEEMod?

- Calculates for air district, county, air basin, state level
- Calculates emissions from construction and operation
- Calculates direct and indirect GHG emissions (e.g., energy use, water/wastewater use, solid waste disposal, and vegetation planting and/or removal)
- Calculates benefits from mitigation measures

Design Specifics

- Flexibility in usage
  - ✓ defaults allow minimal amount of required input
  - ✓ provides ability to insert spreadsheet for large projects (e.g., construction schedule, construction equipment list)
- Regional defaults
- Ability to change defaults
- All equations and sources verified and documented in appendices

Expected Use and Interest

- Variety of applications – specific project, mixed use, plans, inventory, *user defined* land uses
- Statewide users include:
  - ✓ environmental consultants
  - ✓ city and county planners
  - ✓ air quality districts
  - ✓ CEQA/NEPA document reviewers
  - ✓ developers
  - ✓ decision-makers

- Interest expressed by National Association of Clean Air Agencies (NACAA) for national model

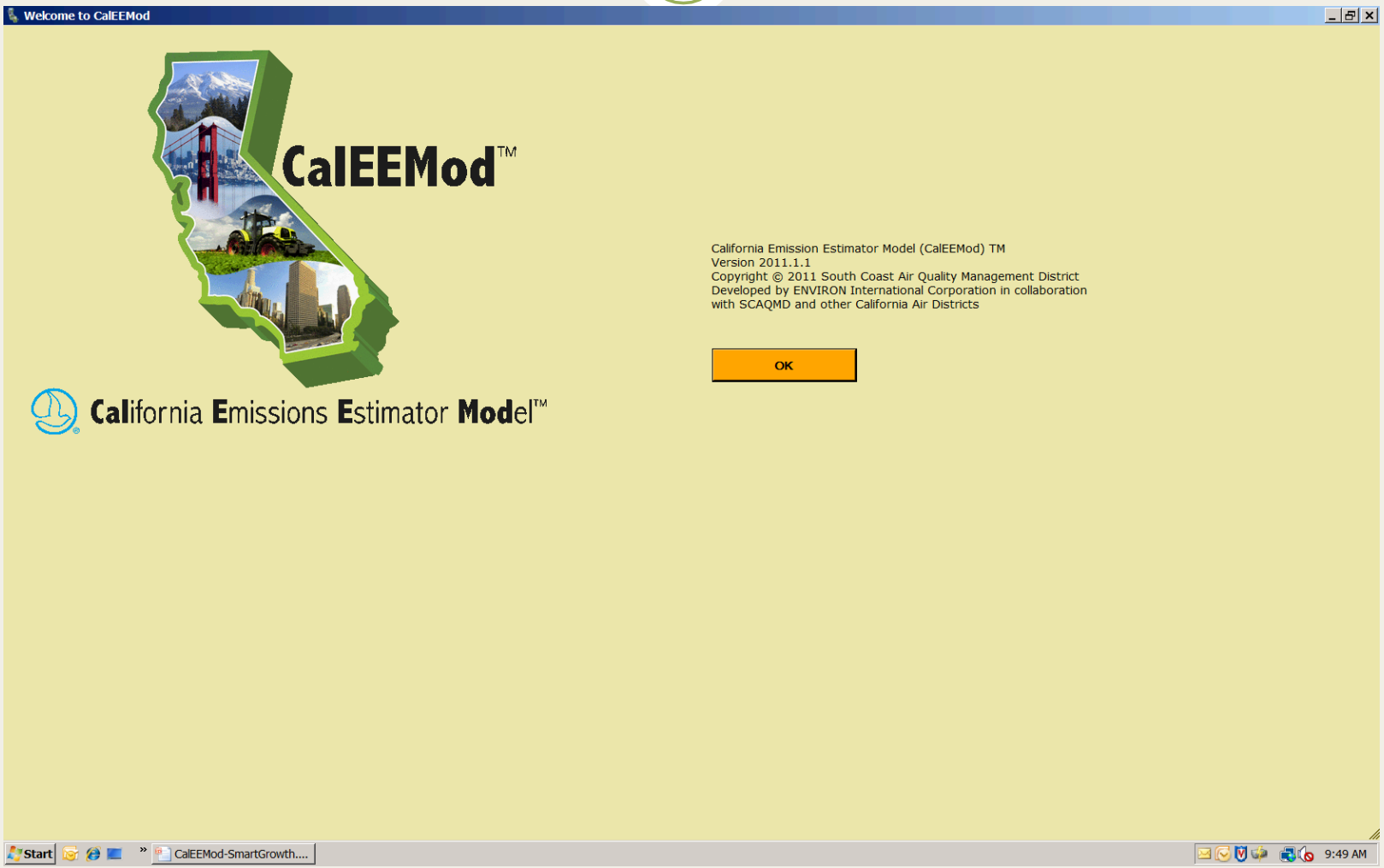
Importance to California Air Districts

- Integrity of air quality analysis
- Standardize air quality analysis
- Substantial evidence supporting tool
- Mitigate projects as feasibly possible
- Comply with requirements *(e.g., CEQA, GHG, planning, etc.)*
- Ensure ongoing maintenance and upgrades

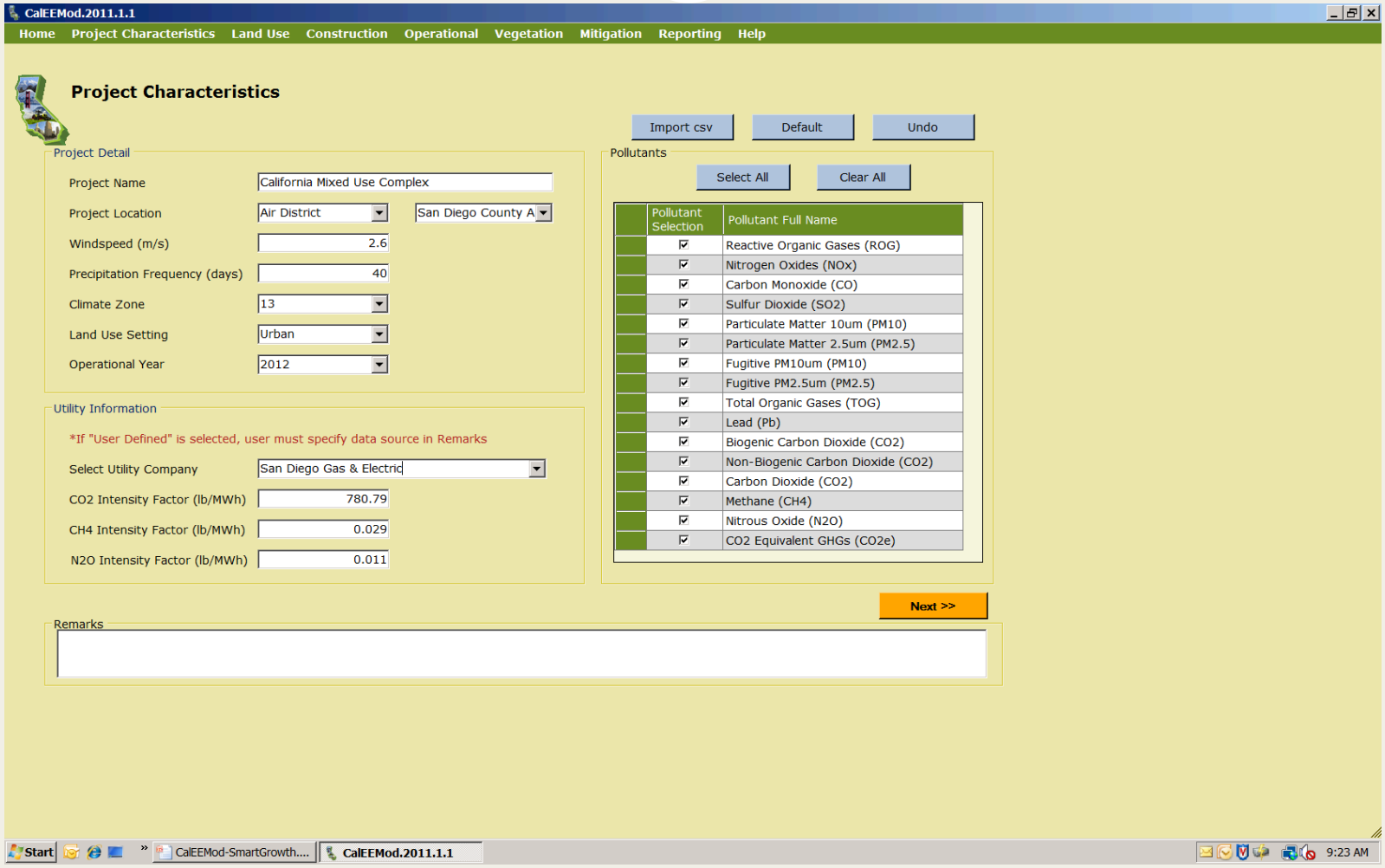
Current Status

- Over 6,000 downloads since initial release
- California training classes
- Online training segments being produced
- Website - www.caleemod.com:
  - ✓ Modeling files
  - ✓ User's Guide/User's Tips
  - ✓ FAQs
  - ✓ Subscriber sign-up
  - ✓ Upcoming events
- Upgrades to make model faster and new features
- New version expected to be release Spring 2012

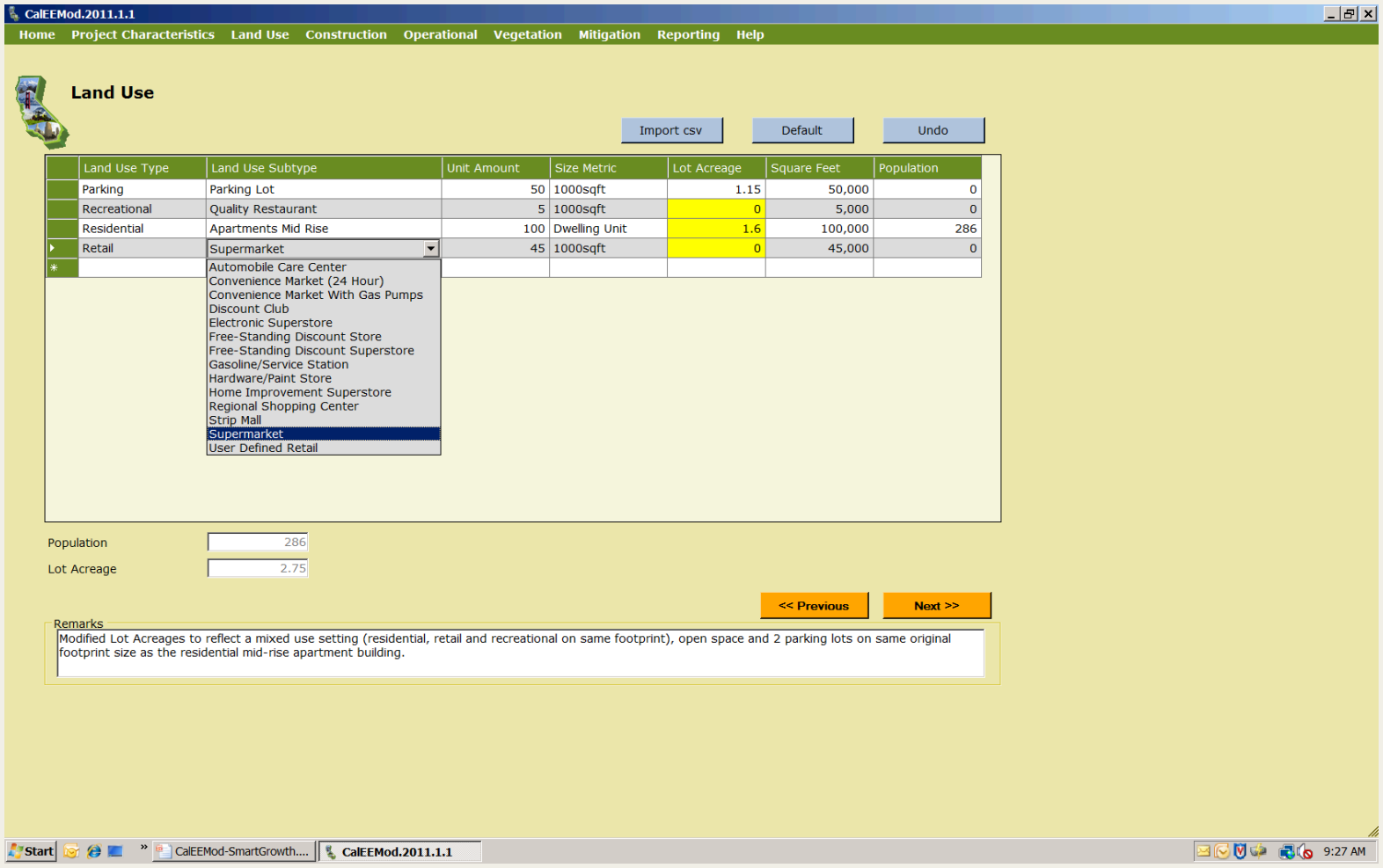
CalEEMod Screen Shots



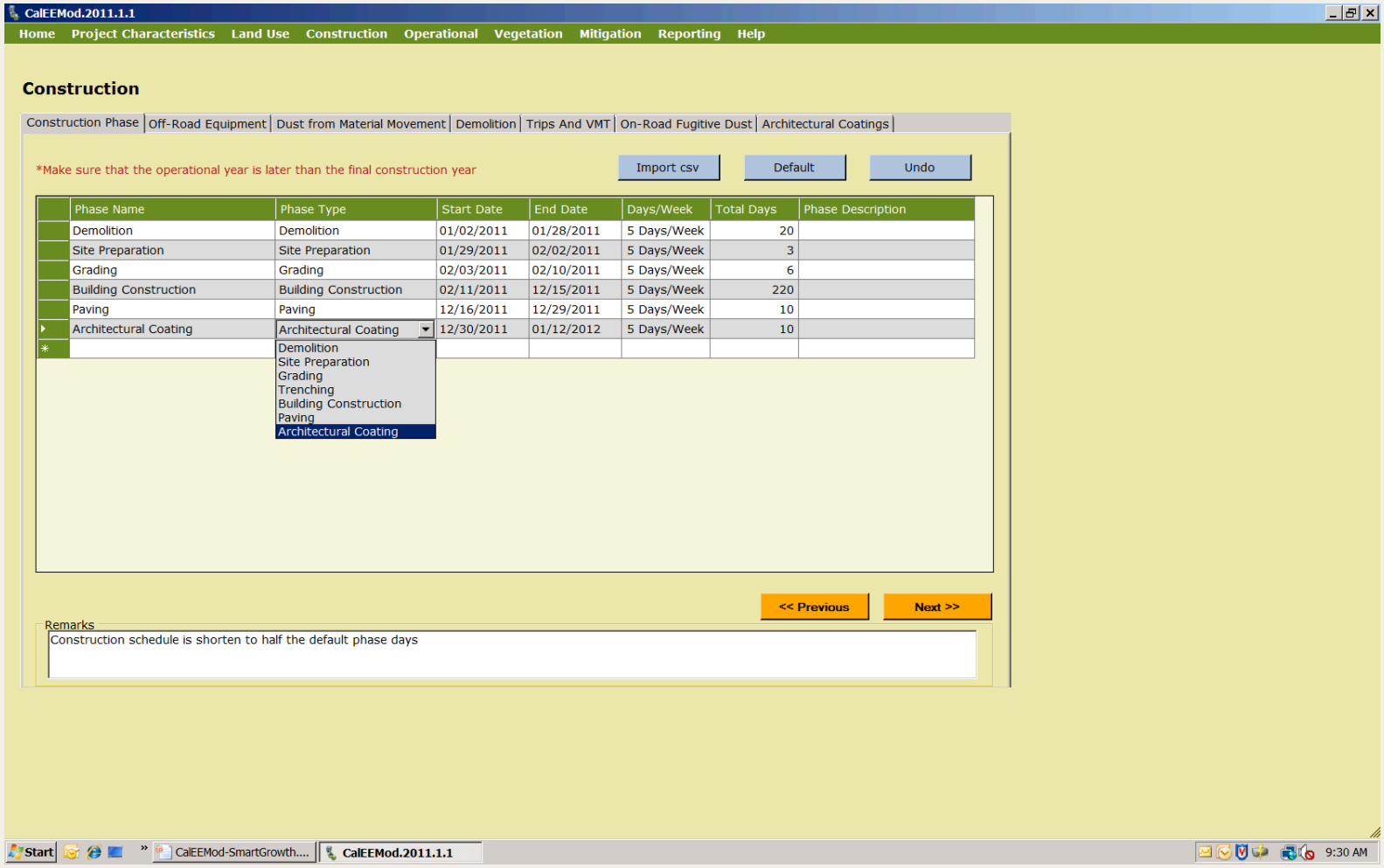
Project Characteristics



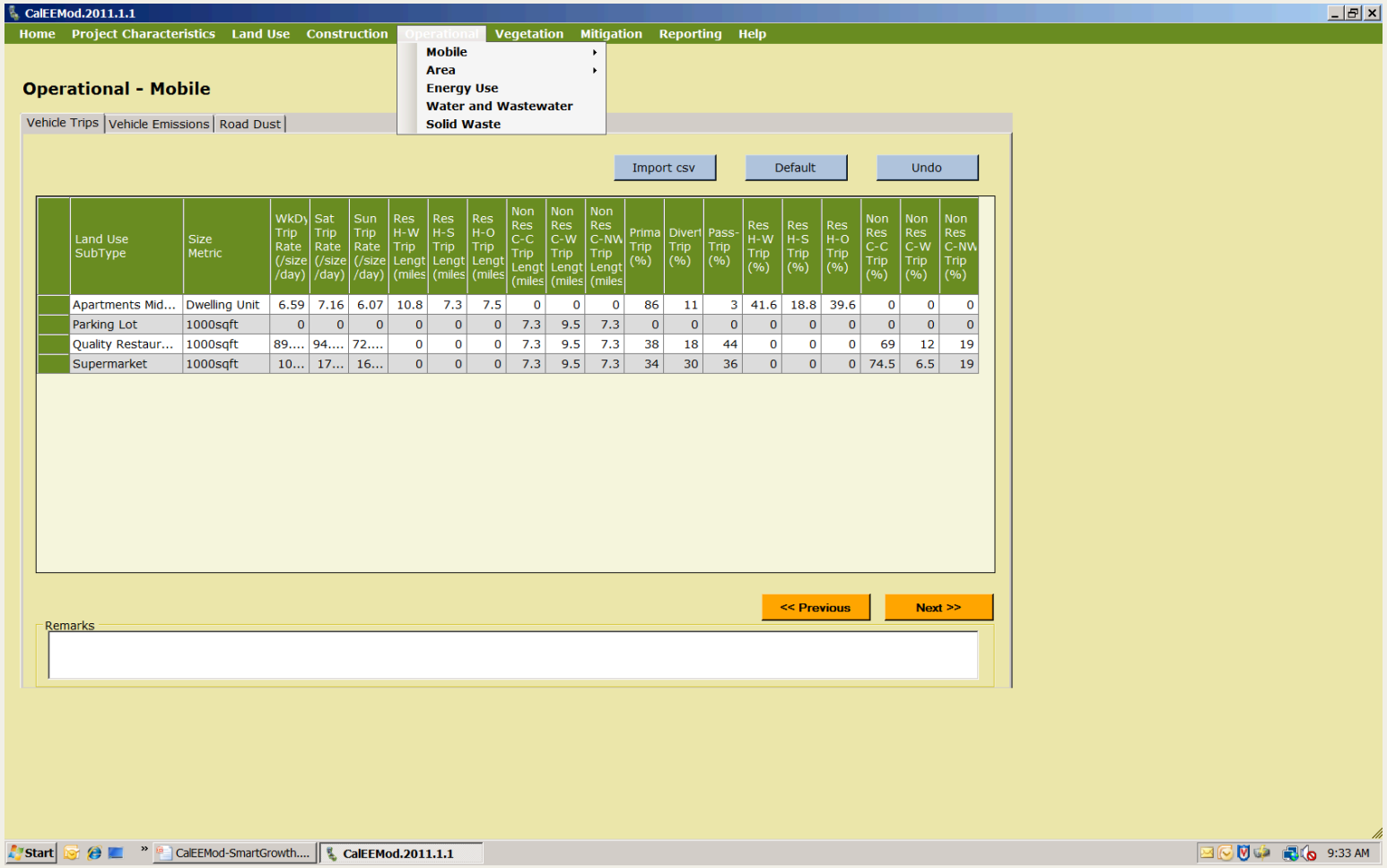
Land Use Information



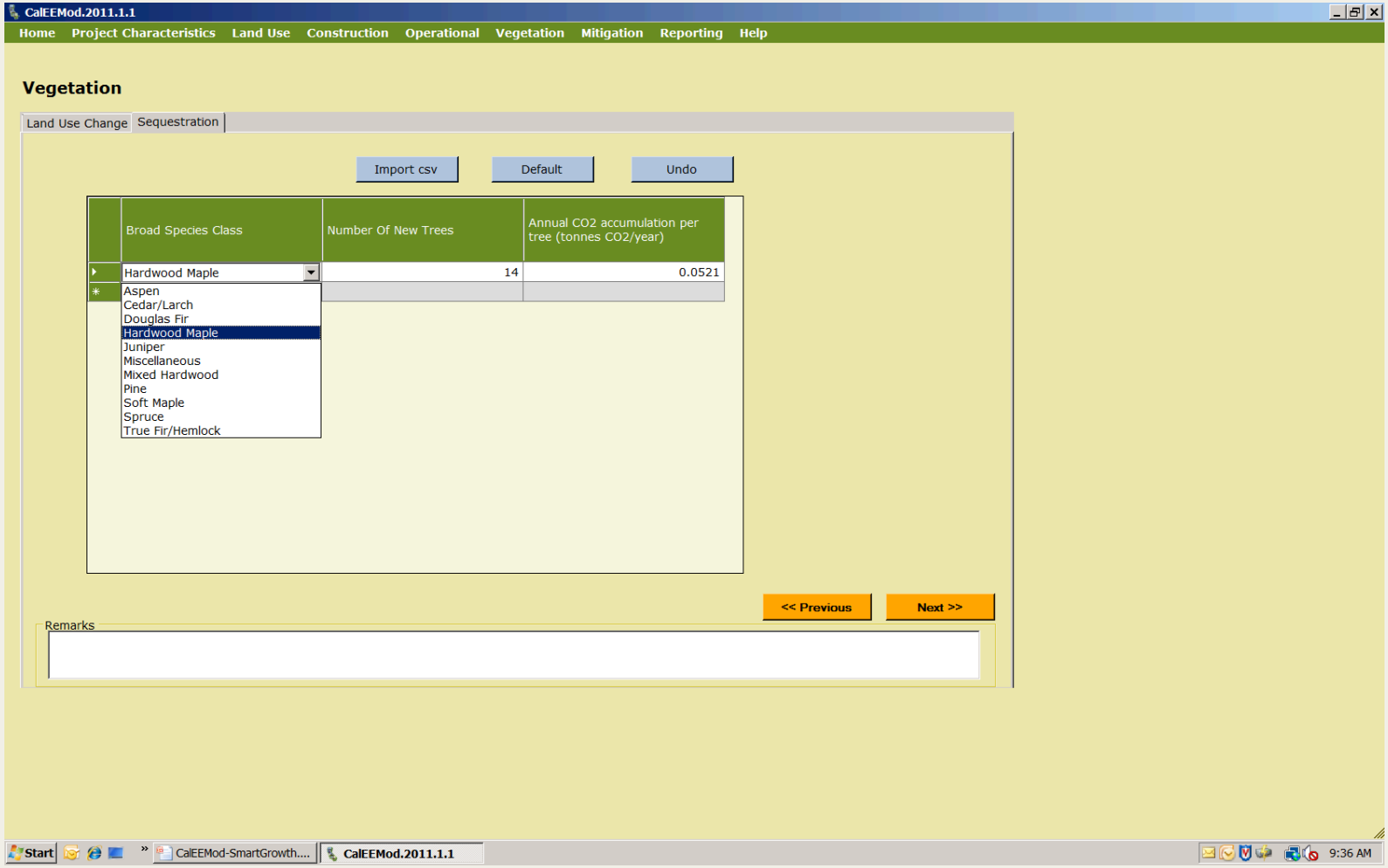
Construction– *Default Schedule, Equipment,etc.*



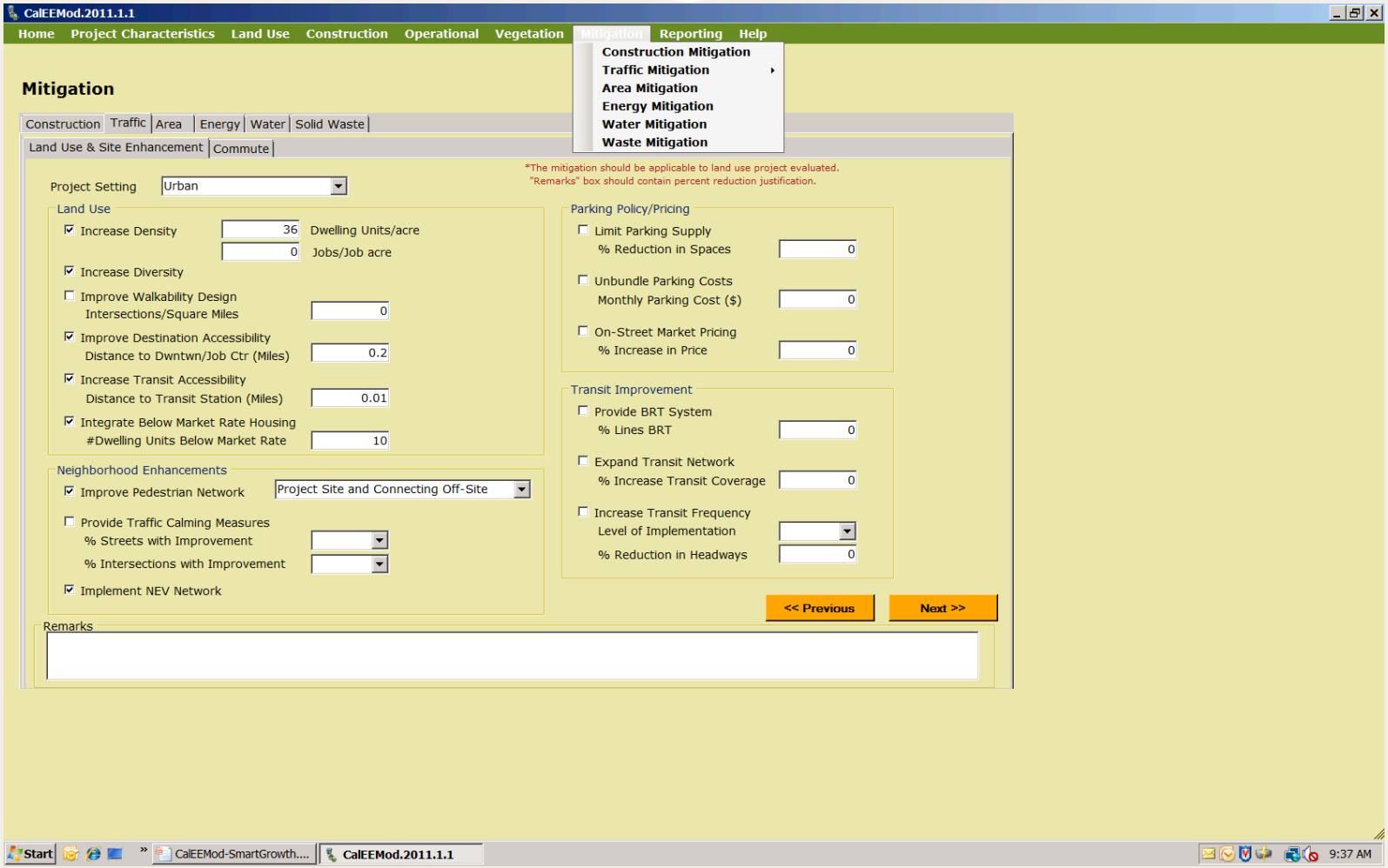
Operation – *Default Vehicle Trips, Lengths, etc.*



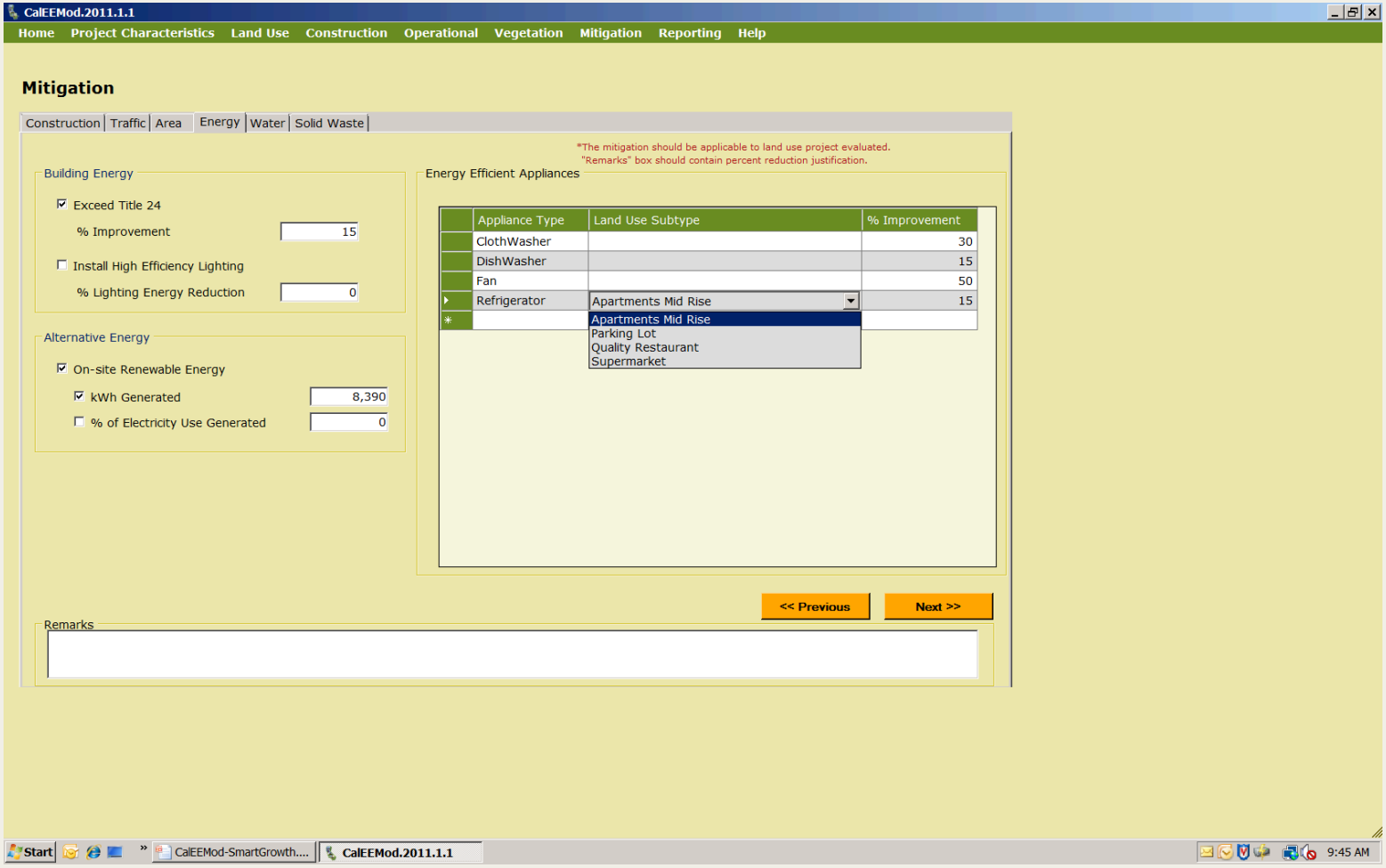
Vegetation – *Change in Acreage, Sequestration*



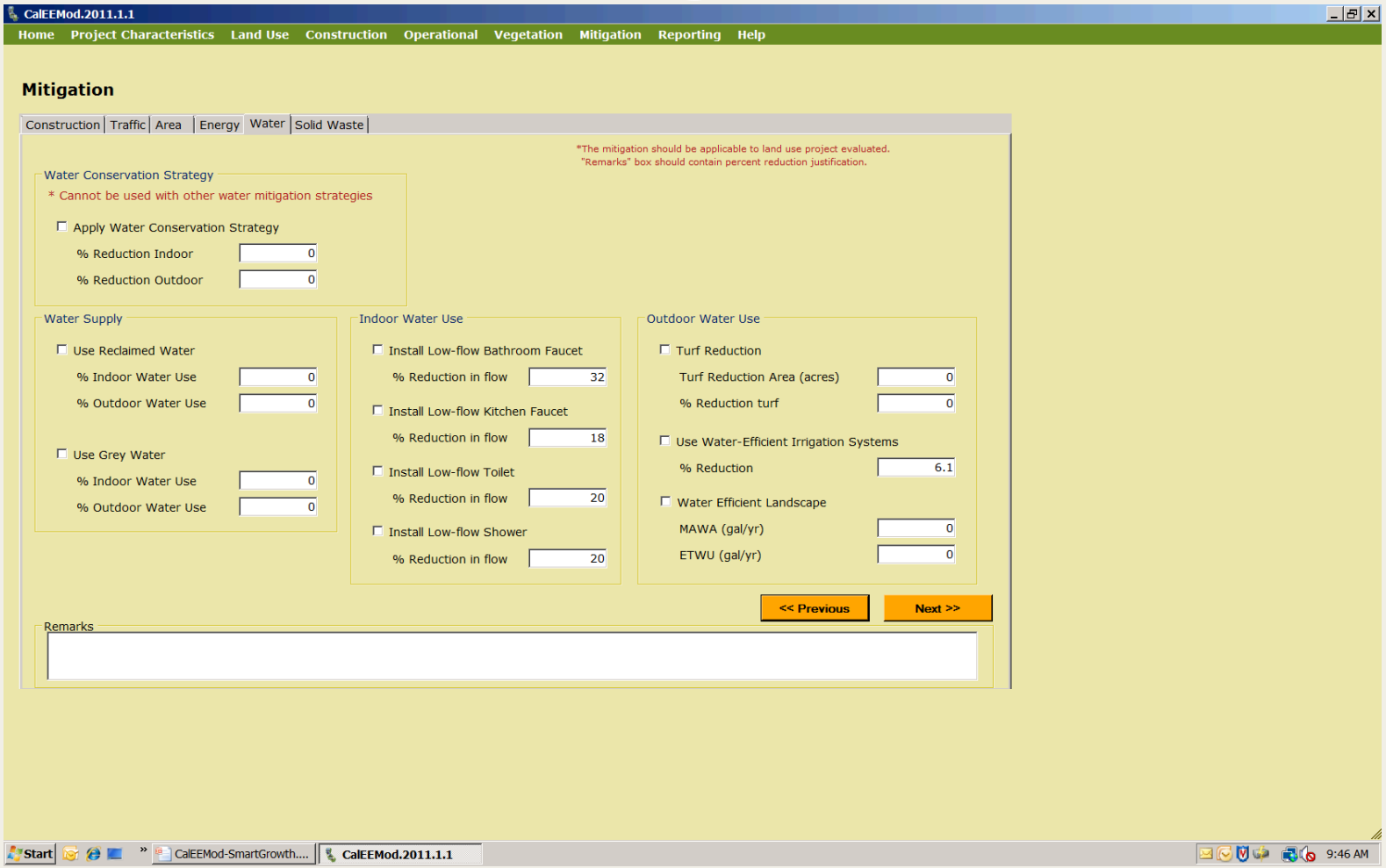
Mitigation – *GHG Design Features (Traffic)*



Mitigation – *GHG Design Features (Energy)*



Mitigation – *GHG Design Features (Water)*



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