

Visualization Navigator, Ltd. Possible Use of Scale Models and Visual Techniques for Enhanced Decision-Making at Cal Compact Landfill

Scale Models



Example: VNL Completed Large-scale Model of Ascon Landfill Site in Huntington Beach, CA



Application of Large-scale Model for Project Visualization: Ascon Construction Simulation



Project Planning with Small-scale Model



Online webcam with Small-scale Model for Project Tracking

Explanation and GIS Figures

Preferred Conceptual Remedy Combines Features of SFS Alternatives 3 to 6: Partial Source Removal with Protective Cap

Preferred Remedy Alternative Has 5 Main Features

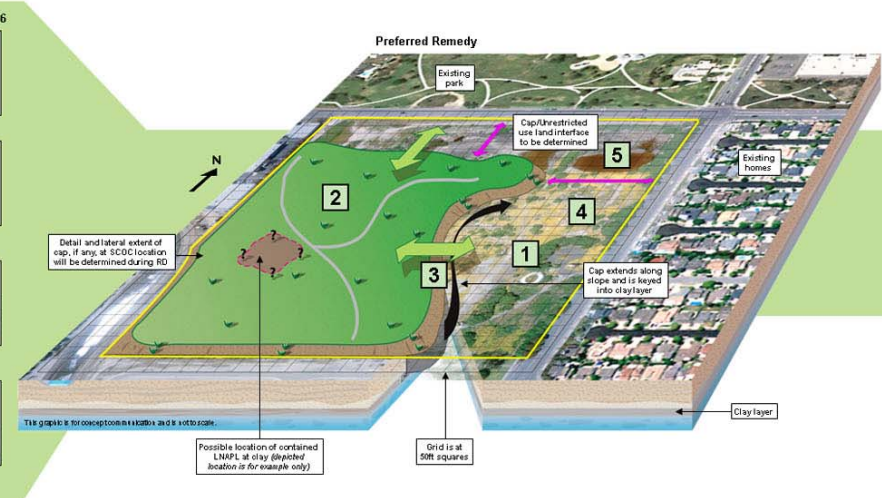
- 1 Unrestricted Land Use Zone**
 - Unrestricted land use zone, where all soils and sludges wastes have been removed
 - Subsurface groundwater impacts could remain
 - Reuse could include:
 - Residential
 - Live/Work
 - Detail
 - Open Space
 - Reuse at all locations may not be possible because of remaining groundwater impacts
- 2 Capped Area**
 - RCA equivalent capped area
 - Located in park-like setting
- 3 Cap / Unrestricted Use Interface**
 - Cap lateral extent to yet to be determined (see signified by blue green arrows)
 - Obstruction factors include:
 - Dist. use evaluation
 - City input
 - Community input
 - Cap will be keyed into clay layer irrespective of toe location
- 4 Groundwater at "Waste-Removed" Areas**
 - Localized LNAPL and/or dissolved constituents may remain and be separately managed
 - Remedy includes localized monitoring and treatment of groundwater (as required)
- 5 Cap Setback on North and East Sides**
 - Exact distance of property line to cap setback at north and east sides will be determined by considering prior plans, such as:
 - Final/Interim Specific Plan, City of Huntington Beach, 2000
 - Quaternary Specific Plan, City of Huntington Beach, 2002
 - Chapter 211 Off-street Parking and Loading Provisions, City of Huntington Beach, 2002
 - And the remedy technical parameters, such as:
 - Cap height
 - Composition and volume of waste to be capped in place
 - Strength of waste to be capped in place
 - And community issues, such as:
 - Compatibility of any reuse consistent with present (or planned) surrounding land uses

Waste Management Tasks

While lateral extent of cap has yet to be determined, the following waste management tasks will occur:

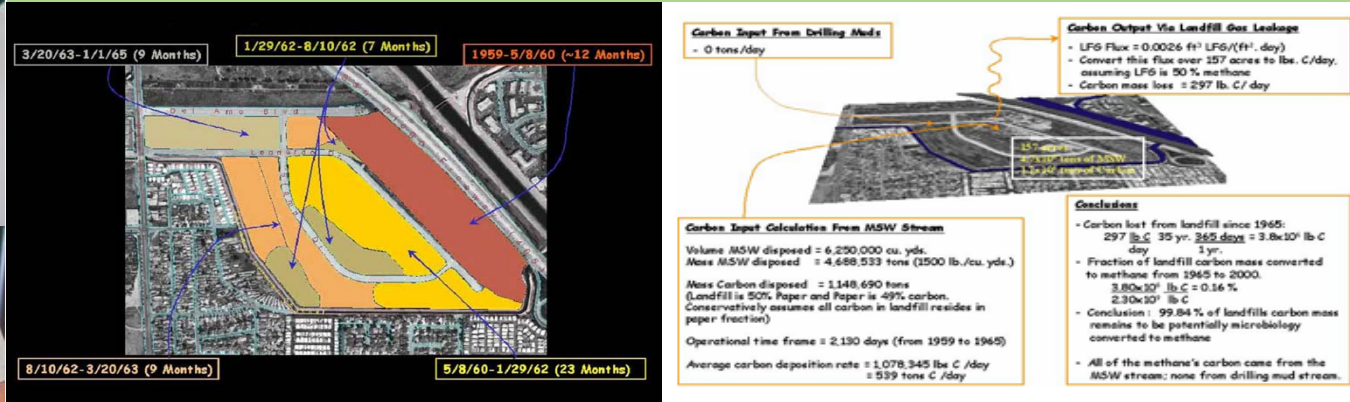
- Offsite disposal of drilling mud wastes in former lagoons areas, to achieve appropriate balance between capped and unrestricted use areas consistent with end use objectives
- Offsite disposal of heavy wastes from Ls 1 to 3, and stabilize remaining lagoon sludges
- Offsite disposal of Ls 4 and 5
- Offsite disposal of PIF

SFS Alternatives 3 to 6



Explanation Figure Depicting Conceptual Remedy Features at Ascon Landfill Site

Land Reuse Options	RELEVANT METRICS	CUBIC YARDS REMOVED	ACRES CLOSED	COST RANGE (\$/sq ft)
1 Residential Single-Family	11 acres per 100,000 sq ft	100,000	11-20	100-125
2 Live/Work / Multi-Family	16 acres per 100,000 sq ft	200,000	0-16	60-100
3 Retail / Office	13 acres per 100,000 sq ft	Approx. same as 2	0-16	60-100
4 Open Space	100,000 sq ft	100,000	0-16	30-60



Previous Work Product Produced by Project Navigator for Cal Compact

Preliminary Estimated Costs for an Accurate Cal Compact Model

Small-scale model	Large-scale model
\$5,000 - \$10,000	\$20,000 - \$30,000