

Roanoke Island Water Expansion

Financial Feasibility Model

Roanoke Island Water Expansion

- Engineering feasibility study performed by CDM
- North end of Roanoke Island
 - \$11.37 to \$11.65 million
- Wanchese
 - \$5.3 million

Financial Feasibility Study

- Two models developed by Raftelis Financial Consulting
 - Roanoke Island expansion on a stand alone basis
 - Roanoke Island expansion incorporated into County's existing Water Rate Model

Water Rate Model

- Developed in 1998 by Raftelis
 - In conjunction with Financial Feasibility Study for County's Series 1998 Water Revenue Bonds
 - Updated once every two years
 - Excel based model with 28 connected worksheets

Water Rate Model

- Model used to:
 - Project future operating revenues and expenses
 - Model and project future retail and wholesale water rates
 - Model and project future cash set aside for capital projects
 - Calculate future revenue bond coverage

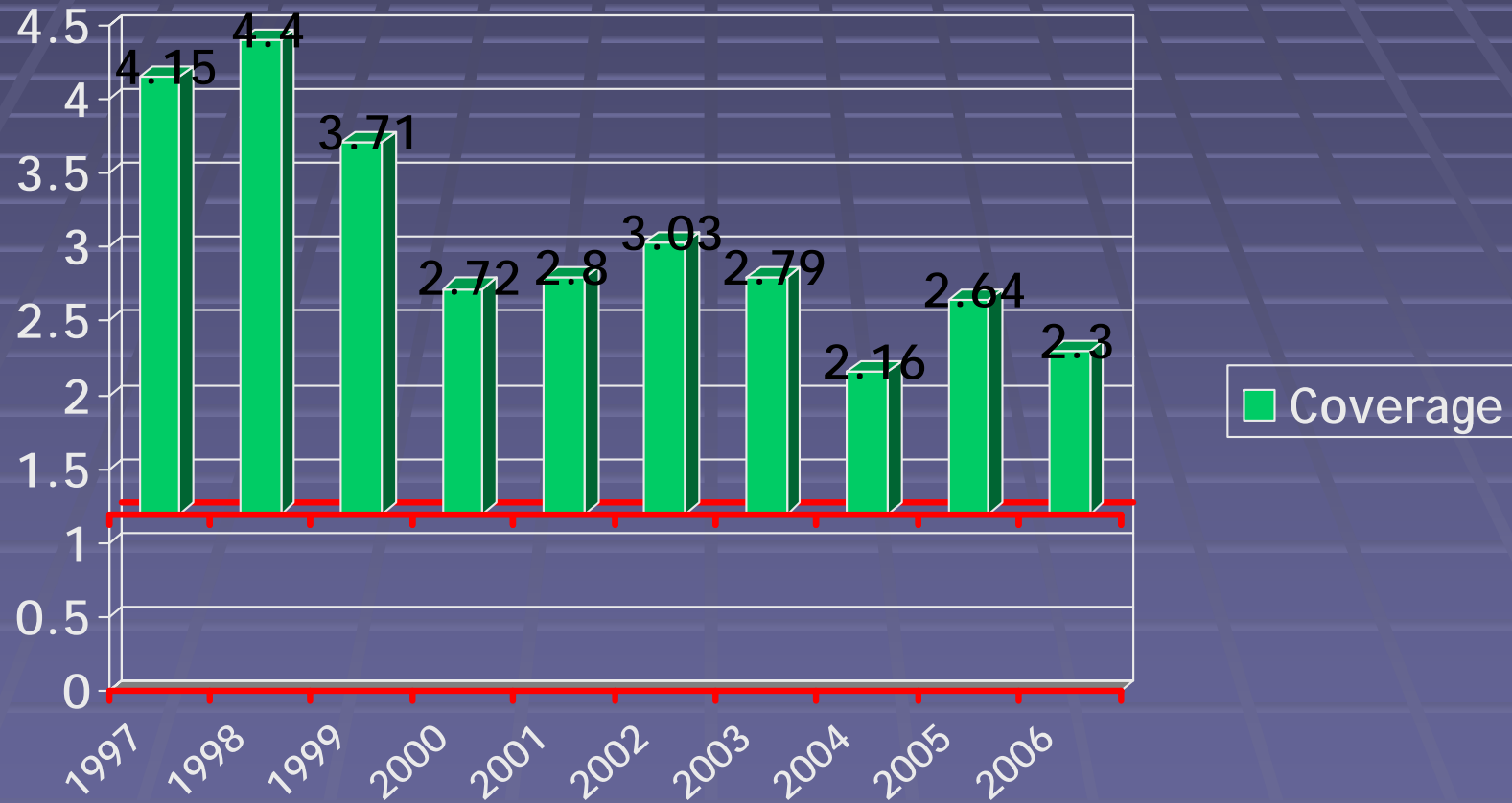
Revenue Bond Coverage

- County has outstanding Series 1994 and Series 1998 Water Revenue Bonds
- County made commitments in bond documents – “covenants”
- Most important covenant is maintain coverage at no less than 1.20 times annual debt service
 - Must maintain coverage with any additional bond issue

Revenue Bond Coverage

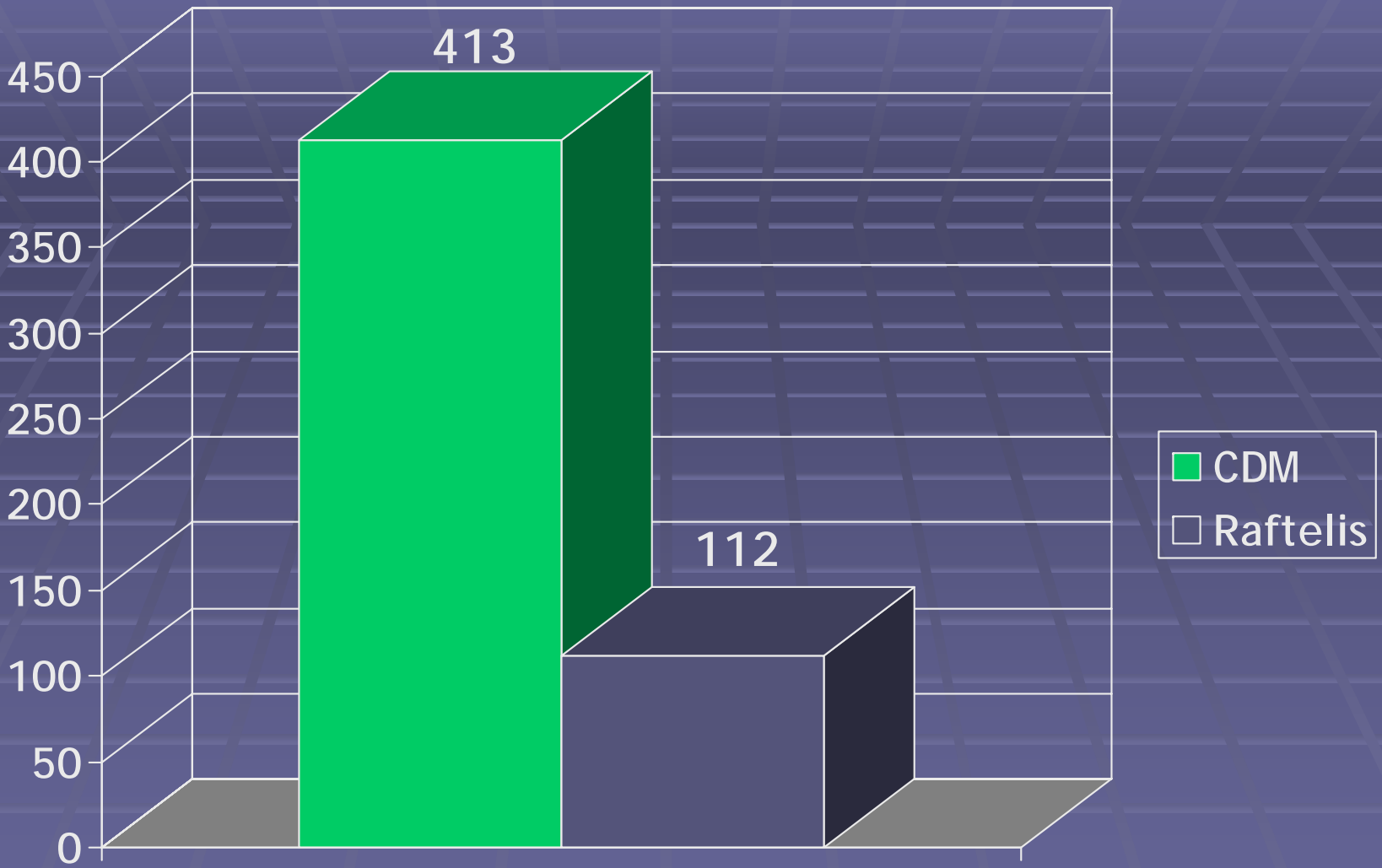
- Coverage:
 - Operating revenues less operating & non-operating expenses
 - Add back non-cash expenses
 - Amortization and depreciation
 - Add back interest expense
 - = “Net Revenues”
 - Net Revenues must be at least 1.20 times annual debt service

Revenue Bond Coverage



Roanoke Island Expansion

- Usage data from existing residential book
 - Usage per account
 - Meter sizes
- Parcel data from tax assessment
 - Count of existing improved properties by type
 - Breakdown of types of commercial users
 - Undeveloped parcels



Annual Million Gallons

Roanoke Island Expansion

- Assumptions
 - North RI connections made over 3 years
 - Wanchese connections made over 2 years
 - Additional O&M costs of \$1.29 per 1,000 gallons
 - 3% annual escalation in O&M
 - 5.5% interest rate on debt

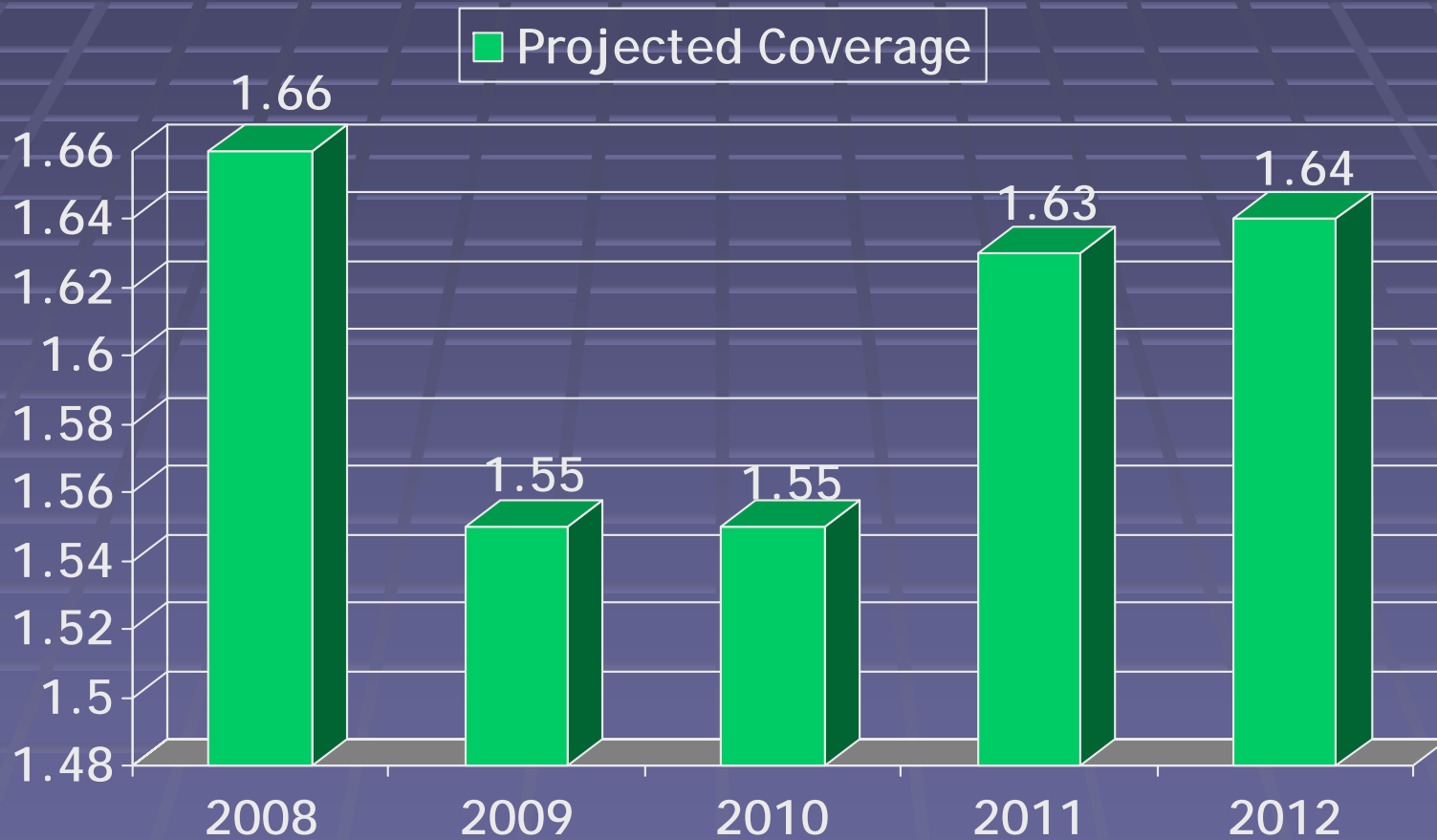
Roanoke Island Expansion

- Expansion works on a stand alone basis
 - But only at ~ 1.20 coverage
- Requires:
 - Mandatory hook up
 - Normal \$2,500 impact fee but payable over 5 to 7 years
 - Initial usage rates same as rest of county but thereafter 4% annual increases

Complete Rate Model

- Conservation program before arsenic treatment and new trains caused some problems with projections
 - Raftelis used linear regressions
- System has some capacity to absorb operating costs and keep coverage above 1.50 times
 - 1.5 times is “action floor” per documents

Complete Rate Model



Complete Rate Model

- Water CIP not yet integrated
- Current E&R balance = \$3,281,581
- Model provides cash for paygo
 - 2008 \$649,000
 - 2009 \$649,000
 - 2010 \$649,000
 - 2011 \$650,000
 - 2012 \$649,000

Complete Rate Model

- \$6.5 million for paygo system improvements over the next 5 years
- Must evaluate adequacy with budget and Water CIP

Roanoke Island Water Expansion

- Financially feasible
 - At revenue bond coverage > 1.50 times
 - Contingent upon evaluation of E&R Fund sufficiency
- Conditions:
 - Mandatory hook-up
 - Same usage rates as rest of county
 - Standard impact fee – payable over 5-7 years