

# Wastewater treatment spending needs, 2010-29

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# Global wastewater capex, 2009

- Data is patchy, but estimates are emerging:
- Treatment plants                      \$29.7 bn
- Sewerage rehabilitation              \$15.8 bn
- Sewerage extension                    \$37.8 bn
- Total                                        \$83.5 bn
- Source: Media Analytics / GWI

# North America

- US ASCE wastewater infrastructure rating has fallen from D+ in 1998 to D- by 2009
- 86% of Canada's wastewater treated (2004) vs c80% of the USA's (2009)
- 67% of Canada's wastewater 2°/3° treated (2004)
- C\$8.8 bn needed for WW treatment
- 62% of USA's wastewater 2°/3° treated (1996)
- US\$137 bn need for WW treatment

# Europe

- The EU is the crucial driver (& climate change)
- EU 15 85% WW 2°/3° (2007-09)
- EU new members 55% WW 2°/3° (2007-09)
- Rest of Europe 15% WW 2°/3° (2000-04)
- EU - WFD \$20-50 bn
- EU - UWWTD \$50-300 bn
- Rest of Europe \$30-50 bn (basic WW)
- Other WW needs \$100-200 bn

# Developed Asia

- 65% of sewage treated to 2°/3° standard
- Services seen as essential to compete
- Pragmatism is the norm
- Japan & Korea – universal urban WWTW
- Australia: from D- in 1999 to C+ in 2005
- Japan \$6-8 bn pa on sewage treatment
- Korea: Green Vision 21 ~ \$3 bn pa
- Singapore: water recovery a resource ‘pillar’

# Latin America

- 25% WW treated to 2°/3°
- Rapid urbanisation seen
- Large informal settlements emerging
- Chile, Brazil & Mexico – progressive
- Argentina, Bolivia & Uruguay – regressive
- Watsan politics hampering global presence
- \$61 bn WW capex needs identified

# China

- Conflict between water resources and needs: groundwater loss and river quality issues
- Urban population growth will continue
- Urban 2°/3° WW treatment from 52% in 2005 to 60-65% by 2011 & 70-80% from 2016
- Wastewater recovery to be the norm
- \$8-12 bn pa capex 2011-16
- Compliance issues are a continuing worry

# Rest of the World

- 5% of urban WW treated to 2°/3° standard
- 1 billion + living in informal settlements
- Water scarcity is the norm
- Pragmatic WW treatment needed for now
- \$90-120 bn in basic WW needs identified
- Rather more is in fact needed
- WW recovery emerging, especially in MENA

# Conclusions

- \$40-52 bn pa needs to be spent globally on basic urban WW projects and wastewater recovery for next 20 years
- Genuine IRBWM needs \$55-75 bn pa
- Current spending estimated at \$30 bn pa
- Public does not see the tangible benefit
- Politicians loathe to spend money on WW
- How do we plug the gap?