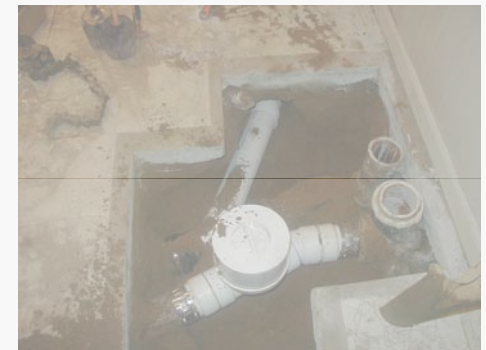
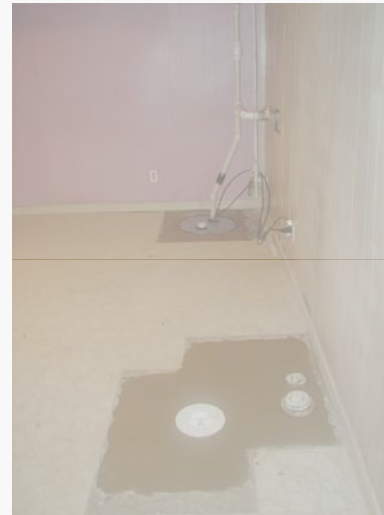
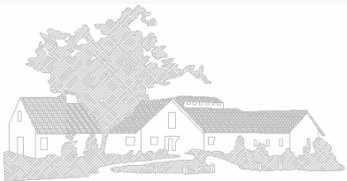


Successful Private Property Programs - I&I Source Removal



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City of Auburn Hills



Presentation Agenda

- Project Introduction
- Results
- Program Development
 - Public Education & Public Relations
 - Project Team
 - Tools

A horizontal bar chart with two bars. The top bar is blue and the bottom bar is red. The blue bar is longer than the red bar.

Project History

- 1960s – Subdivision constructed with footing drains connected to the sanitary sewer – 532 homes
- 1988 thru 1997 – Various abatement orders issued by EPA & MDEQ – justification for private property work
- 1994 – manhole and sewer repairs, downspout extension program

Project History

- 1998 thru 2000 – I & I alternatives evaluated
 - Off-line storage basins (\$9+ million)
 - Basins with pipe storage (\$7-9 million)
 - Pipe storage with by-pass piping (\$5-6 million)
 - Footing drain disconnection (\$3 million)
- 2001 thru 2003 – 99% of disconnections complete (526 of 532 homes).
- 2005 thru 2006 – Final metering & results

Results

- Total cost – approximately \$4 million (\$7600 per home), including the disconnection, restoration and storm lateral construction
- 59% of dry weather flow removed from system
- 74% of wet weather flow removed from system

Program Development

Public Education & Public Relations



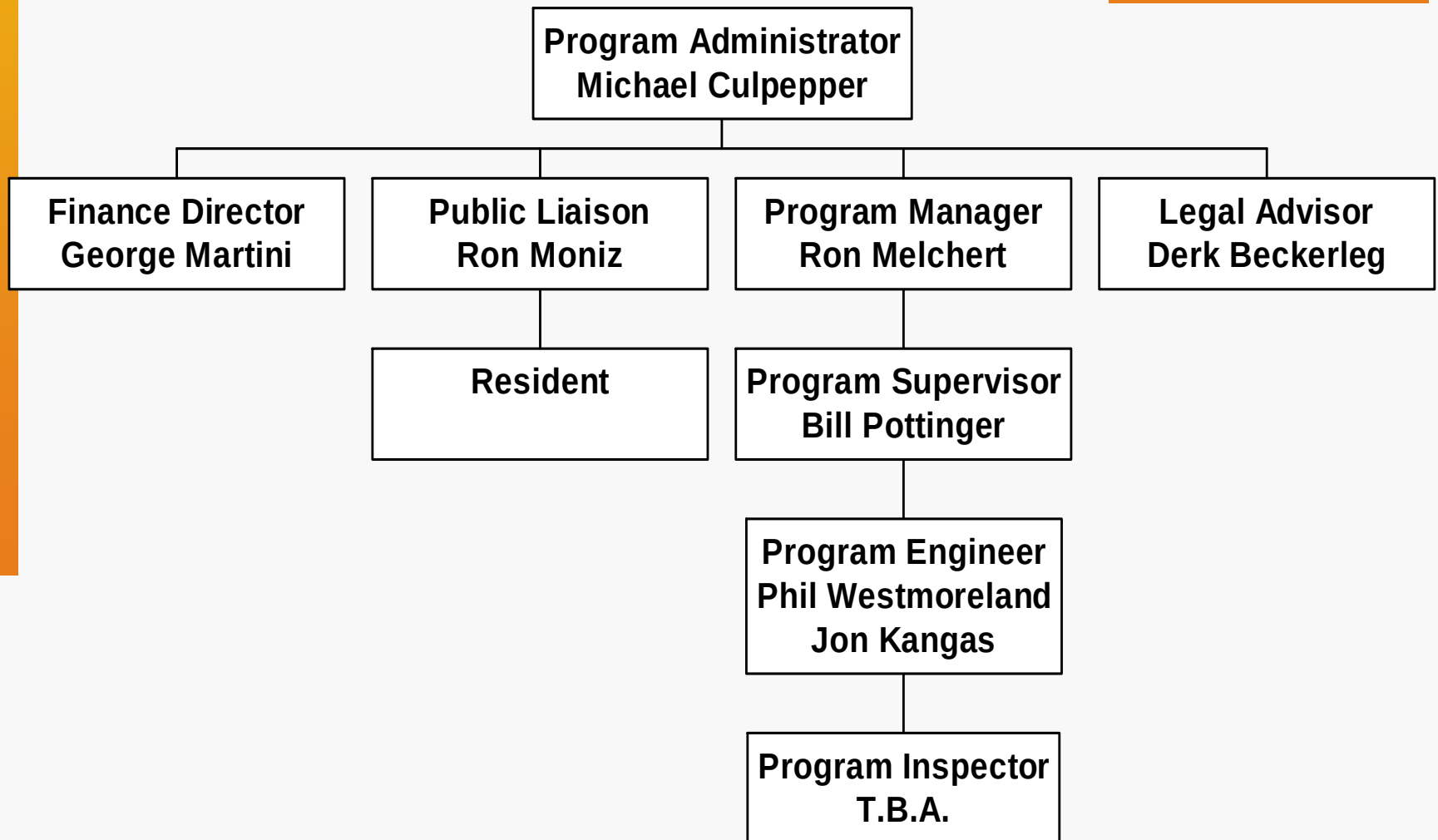
Public Education

- Why & How
 - Neighborhood meetings
 - Informational flyers
 - Website
 - Press Releases
- Consistent Message

Public Relations

- Resident friendly
- Contractor selection & expectations
- Most valuable tool – volunteers
- Most Valuable Player – Public Liaison

Project Team



Tools

- Resident information form
- Volunteer Request
- Pilot program
- Time of sale ordinance
 - Realtor notice
- Funding mechanisms
- Contractor selection
 - Contractor pre-qualification information
 - Contractor interview questions

Tools cont.

- Home inspection form
- Maintenance flyer
 - Personal instruction
 - Follow up maintenance
 - Warranty
- Completion Release

Disconnection Piping



Disconnection Piping



Conclusion

- Remedial actions on private property are possible!
- Often they are more cost effective long term than conventional rehabilitation approaches
- Can actually be less disruptive to residents than conventional projects
- Success on private property depends heavily on a well thought out public education & relations program