



Decentralized Overview



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Because in Florida, “It’s the water, stupid.” ©

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- **When the water’s brown, ain’t no one coming down.**




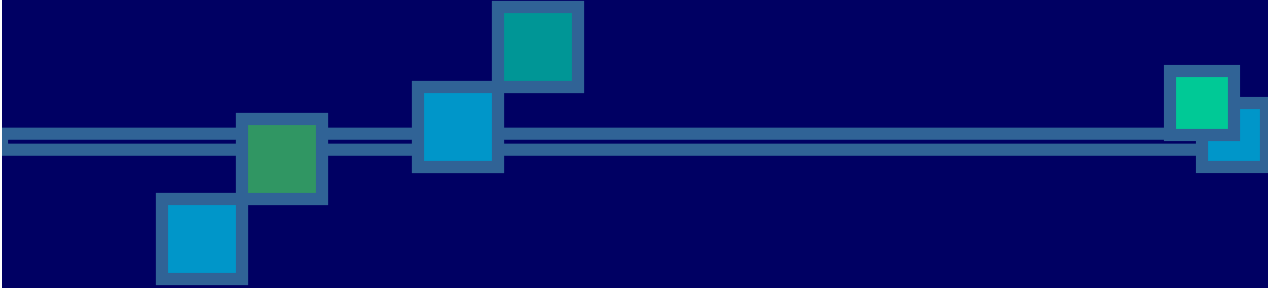
Plenty of studies have been done

- *We know what works*
 - *And under what conditions*
 - **Several things lacking:**
 - *Good Engineering design*
 - *Good Quality Control during installation*
 - *Professional management for ongoing O&M*
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Current status quo

- DOH regulates
 - Has incomplete management mandate, and inadequate funding for same
 - Maintenance entities too fragmented, also have inadequate rate structure
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***Institute EPA Level V
Management structure for
all new construction not
connected to central sewer***



- ***Must be done “in quantity” for wholesale as opposed to retail costs***
- ***EPA Model Code exists***



Utility, Level V

- **Supplies**
 - **Installs**
 - **Maintains**
 - **Billing is same as any utility:**
 - **On-site Treatment Systems**
 - **Cluster systems (parts of neighborhoods)**
 - **Package plants**
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Specify treatment levels based upon site sensitivity

- **Location**
 - Springshed
 - Waterfront
 - Near water
 - Isolated from water
- **Soil conditions**




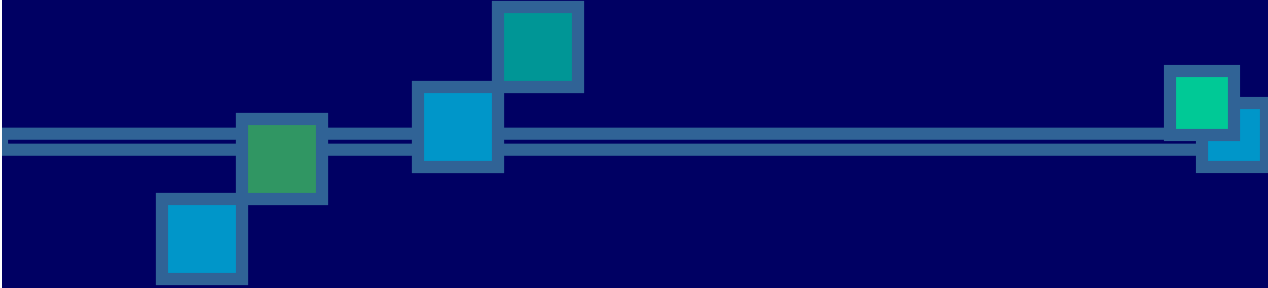

For existing systems

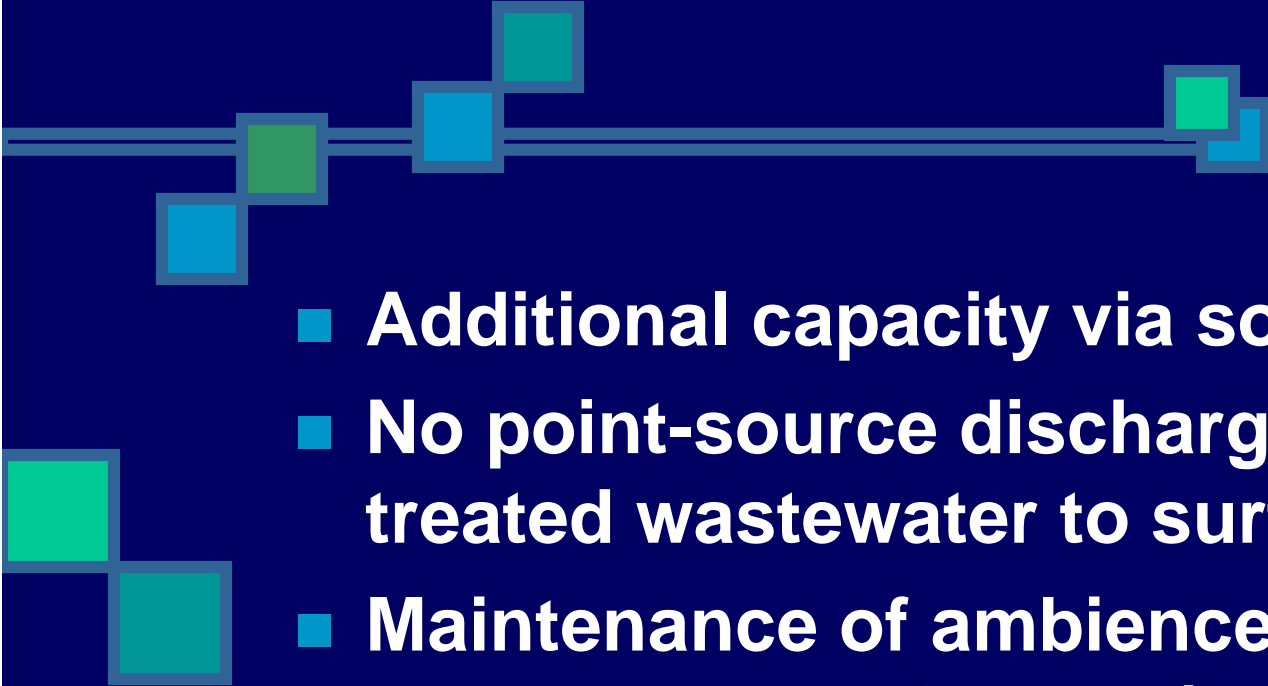
- Level IV or Level V
 - Retrofit based upon site sensitivity, as required
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What problems does onsite/decentralized solve?

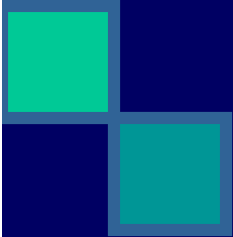

- **NIMBY: WWTP**
 - **Land expense, direct as well as indirect cost and time lost during acquisition**
 - **Controls-without stifling-development and density**
 - **Virtually every property in our area already has an onsite system; they simply need to be upgraded, properly maintained, and managed**
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- **COST FOR COLLECTION SYSTEMS: ZERO**
 - \$\$ can be used for treatment, management
 - **Reuse for landscape irrigation: demand reduction**
 - **Rapidity with which we can attack problem systems/triage**
 - **Concurrency: install as needed**
 - **Rewards those that do (and especially have already) done the right thing by installing an appropriate onsite treatment system**
 - **Stormwater work can be done on each site at the same time**
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- **Additional capacity via soil treatment**
 - **No point-source discharge of partially treated wastewater to surface waters**
 - **Maintenance of ambience thru promulgation of native/desirable species, irrigated with reuse water**
 - **This is accomplished onsite, without delay, without severe disruption of city life and concomitant indirect costs**



Other notes

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- **Drip: if dose properly, soil never saturated, then water must go up via capillary action, evapotranspiration—no impact upon ground water**
 - **Irrational rules and requirements can SEVERELY impact cost efficiency**
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Wakulla Springs Park & Lodge Septic system

- Any treatment added?
 - Was simply large tanks, dosed drainfield, near spring
 - Transient systems like these sometimes concentrate on ammonia, converting to nitrate, and dumping into drainfield/soil/groundwater
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