

Streamlined Permitting for Land Development Projects

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DES Innovative Permitting Initiative

- **Make it Easier for Environmentally-Superior Projects to Move Through State and Local Permitting Processes**
- **Improve Coordination within DES and with Municipalities and Other Agencies**
- **Increase Use of Better Development Practices**

Outcomes of Process Streamlining to Date:

(1) Integrate & Standardize Processes of 4 Programs:

- Wetlands
- Shoreland
- Subsurface
- Alteration of Terrain



(2) Proposed New Integrated Land Development Permit

- optional, alternative to multiple single permits, with structured, coordinated pre-application process

Lean in Government



Lean: Excellence in Government

Improving Environmental Agency Processes with Lean and Six Sigma



Over the past few years EPA and state environmental agencies have experimented with an exciting new approach to improve government processes. More than 20 States and many federal agencies are using Lean and Six Sigma to achieve dramatic results. EPA, in partnership with EOCOS, is working to expand the use of this continuous improvement approach.

Lean in Government

- Using Lean, environmental agencies have improved quality, cost effectiveness, service delivery and responsiveness to the public, without compromising environmental protection.
- Lean is a collection of principles, methods, and tools that improve the speed and efficiency of any process by eliminating waste.
- Although Lean originated in manufacturing operations, the tools have been successfully applied in organizations across all sectors, including the government.
- Lean methods are highly adaptable and could be used in a myriad of processes ranging from rulemaking to processing of grants and contracts.

How Lean Achieves Results

Lean techniques such as value stream mapping and kaizen rapid improvement events identify and eliminate unnecessary and non-value added process steps and activities that have built up over time. Lean efforts are not just about fixing broken processes. State agencies have found that these methods enable them to understand how their processes work on the ground and to build a culture of continuous improvement.

By getting process activities and procedures to function smoothly and consistently, agencies free staff time to focus on higher value activities more directly linked to environmental protection. While successfully implementing Lean requires hard work and commitment, the results can be impressive.

For More Information:

www.epa.gov/lean/lean-government.htm
www.ecos.org/section/projects/?id=2292

Benefits of Using Lean

- ✓ Achieves environmental results
- ✓ Ensures better customer service
- ✓ Reduces process complexity
- ✓ Enhances process speed
- ✓ Produces quality products and services
- ✓ Improves staff morale

Results

- EPA's Office of Water, EPA Region 7 and 4, States** (Iowa, Kansas, Missouri and Nebraska) are using Lean to significantly improve water quality standard setting and NPDES processes, achieving dramatic reductions in review steps.
- Delaware Department of Natural Resources and Environmental Control Methods (DNREC)** used value stream mapping to improve air permitting, by developing new permit applications, installing visual permit tracking boards, and implementing a "First In, First Out" system. As a result, DNREC has reduced their permitting backlog from 199 to 99 minor permits in three months, and to 25 in one year.
- Iowa Department of Natural Resources (IADNR)** has conducted over 90 Lean kaizen rapid improvement events. Results include decreasing lead times on underground storage tank correction action decisions from 18 months to 3 months and reducing the average time to issue standard air construction permits from 63 to 5 days.

Key Lean Tools

- Value Stream Mapping (VSM)** – Value stream mapping refers to the activity of developing a high-level visual representation of the process flow involved in delivering a product or service (a "value stream") to customers. VSM events focus on identifying sources of non-value added activity (waste) and prioritizing future improvement activities.
- Kaizen Events** – Kaizen means "to change for the good of all." Kaizen activity is often focused in rapid process improvement events (kaizen events) that bring together a cross-functional team for 2-5 days to study a specific process and immediately implement process changes.
- Six Sigma** – Lean is often combined with Six Sigma, a process improvement methodology that uses statistical tools to improve quality, reduce defects, and eliminate variation.

What Lean is Not

- Lean is not about compromising environmental protection, loosening environmental regulations, or foregoing an agency's commitment to environmental protection. Lean seeks to correct inefficiencies in administrative processes and workflow, enhancing an agency's ability to protect the environment.
- Lean is not about cutting jobs. Lean retains the current staff, but may reassign or assign new duties to those staff. It is not a test for job performance, rather it seeks to improve the entire agency's performance. Lean often improves staff morale, as employees have a hand in redesigning work processes that enable success.
- Lean is not just another "flavor of the month." Lean methods have been proven effective many times over and in a multitude of settings making it different from past management trends, such as TQM. Unlike past trends that focused on quality only, Lean addresses quality, cost and delivery. Lean's focus on rapid implementation brings real improvement and compelling results fast, sparking momentum for further improvement.

Types of Administrative Waste

Waste	Example
Inventory	Backlog of Work, Excess Materials/Information
Defects	Data Errors, Missing Info
Overproduction	Unneeded Reports, Doing Work Not Requested
Complexity	Unnecessary Process Steps
Waiting	Approval Cycles
Excess Motion	Trips to Remote Printer
Moving Items	Report Routing

Lean in Government Tools



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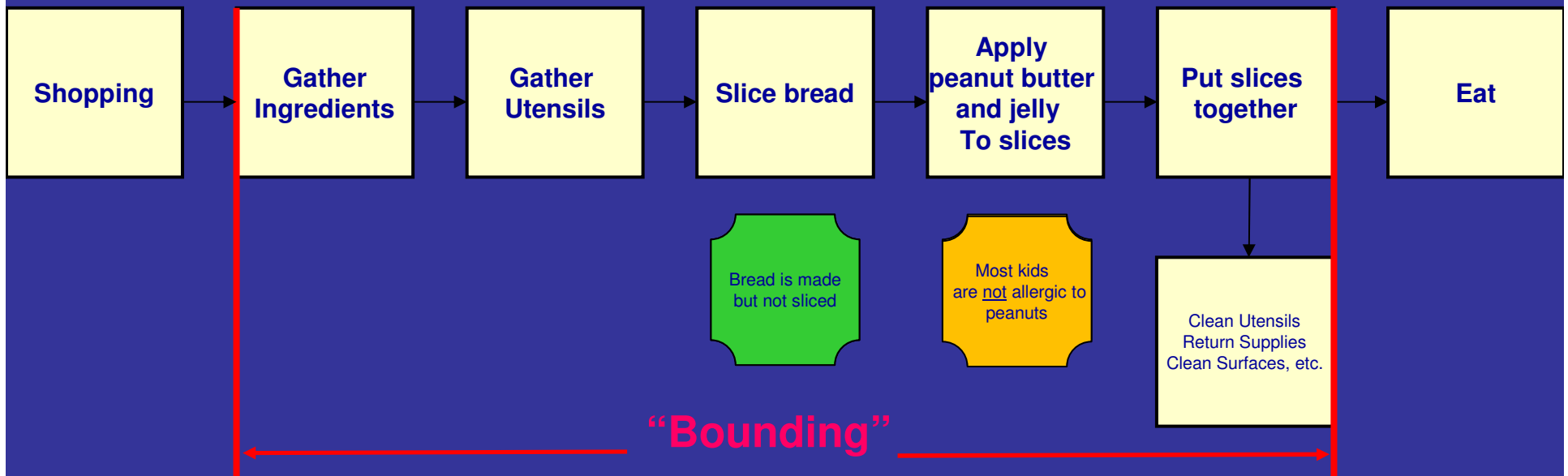
September 2008
 EPA-330-F-08-010

Get the RIGHT Lean Team!

- Open Minded
- Does the Process
- Includes Customer
- Strong Facilitator

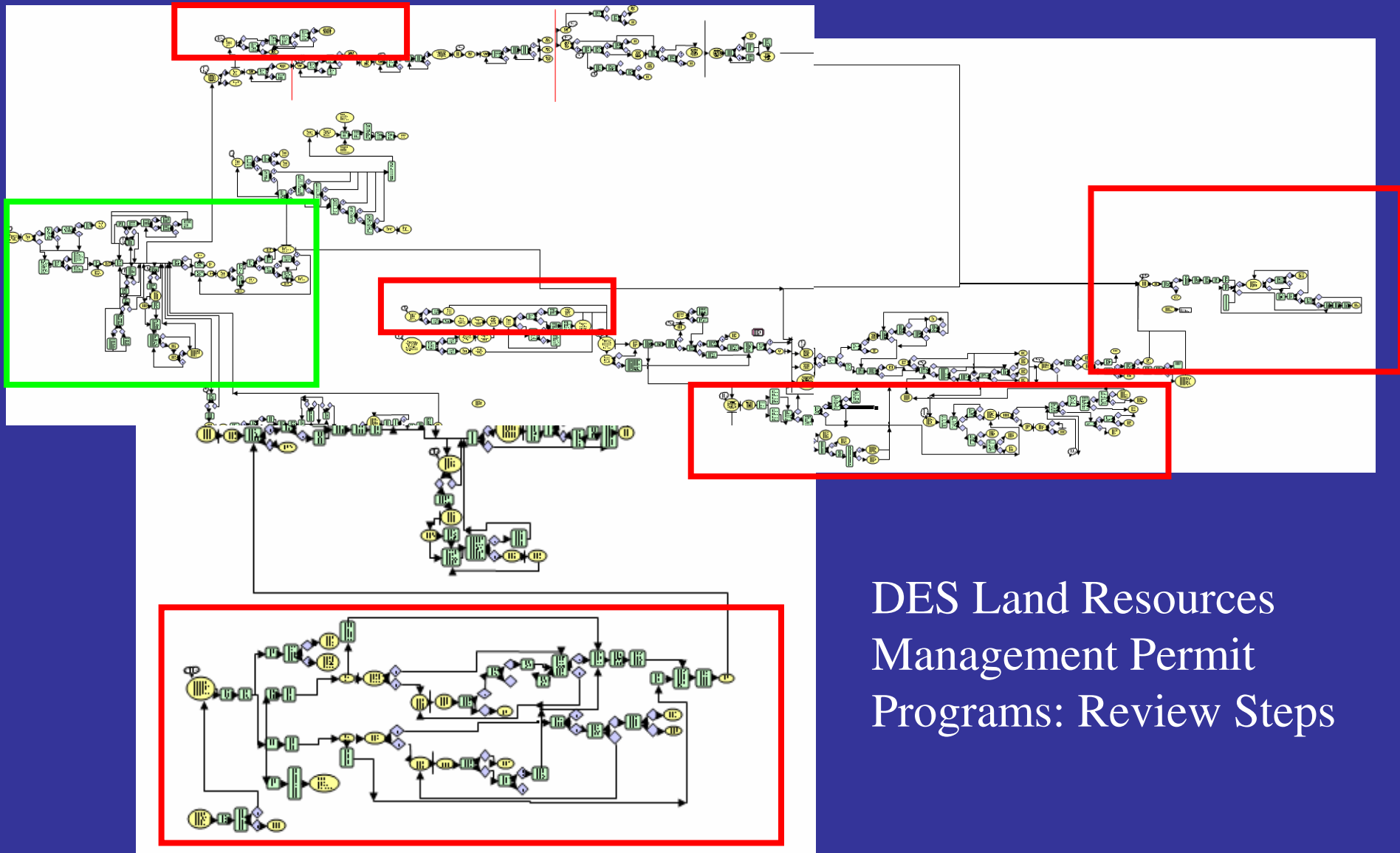


“Current State” Process Map



How to Build a Peanut Butter & Jelly Sandwich

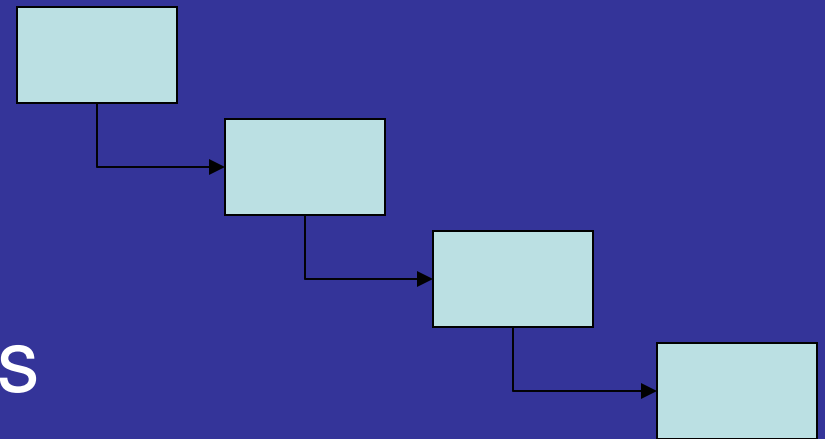
Current Permit Processes Are Complex



Now that you can “See” Process

- Analyze the Process for:

- The “C.Y.A. Factor”
- Complex flow paths
- Major delays / back-logs
- Batching
- Multiple hand-offs & re-work/repeat steps
- Extra motion



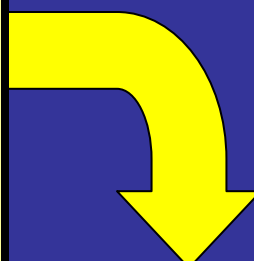


Application Receipt Center

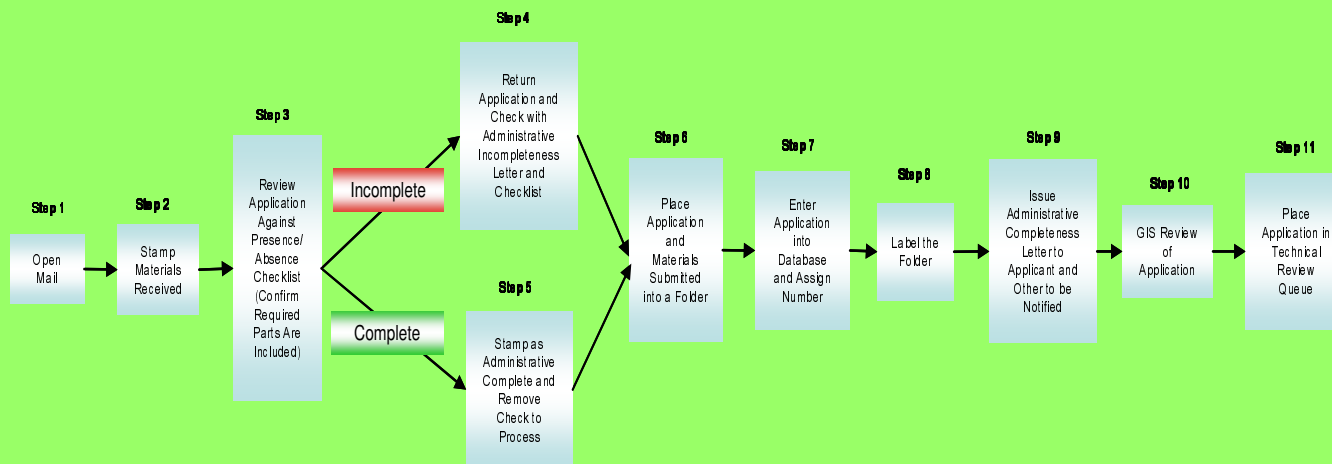
- Combine, standardize, and simplify application intake procedures for four separate land development permit programs

Current State – 4 Separate Processes by 4 Programs

Process	1	2	3	4	5	6	7	8	9	10	11	12	13	14*
A. Submittal	Open folder	Date stamp		File #, log in folder			Full administrative review	Final technical review – plan and type	Acknowledgment letter – confirms time and deadline					Info file on line to queue; also max technical review permit; GIS
B. Workflow	Open, process check, put in folder	Date stamp, partial completeness review & notes		Generate file #, label folder, log in database	Sometimes phone call to request additional materials	GIS review	Examine administrative review package, plans per board's next	Final technical review – look at plan, confirm type of application	Incomplete or correct letter				Possible additional letter for local con compliance if not received earlier, designated review notification	Delivered to appropriate staff/tech queue – file or to Pass
C. Admin of Vermin	Open		Review for completeness & quality				Administrative review for completeness		Keep incomplete applications – phone call request for additional information	Date stamp when complete	Log into database & send notification letter	GIS log in & assessment	Design review notification	Deliver by same day
D. Submittal of Stormwater & Solid	Open mail, sort applications	Date stamp	Initial screen for town stamp if required				Administrative review for presence, not quality		Send incomplete applications back, including check, with letter		Log in & divide up to tech			Deliver by, next day AM

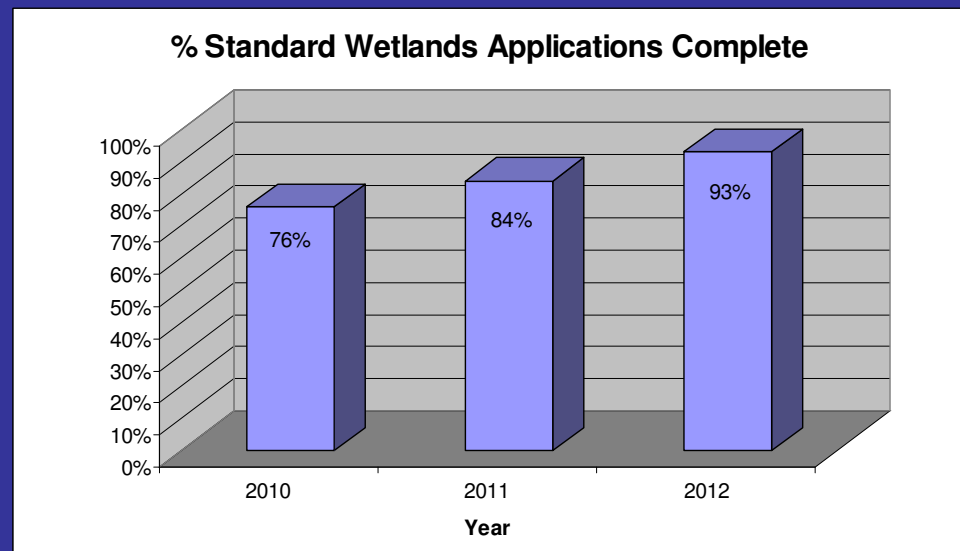


Future State – A Single Process for All Programs



LRM Application Receipt Center - RESULTS

- Applications and Payments now Processed the SAME DAY Received
- Cross-Program Staff Coverage Prevents Delays
- 40% Reduction in Initial Review Processing Time
- Eliminated Duplicative Data Entry and Automated Steps
- 23% Increase in Wetlands Applications Submitted that are Initially Complete



Uses of Lean Approach & Tools

- Evaluate established process – make it more efficient
 - **START SMALL!**
- Define a standard process from many used
 - Standardization of process
 - = more efficient & more accurate
- Design new process – focus on goals!

ALWAYS Communicate! Early, Often, “Bite-sized”



Integrated Land Development Permit (proposed)

- One Permit = Replaces up to 4 Individual Permits
- Streamlined, **Consistent** State Permitting Process
- Improved Coordination with other entities
- Enhanced Pre-Application Guidance
- Holistic Perspective in Regulating Land Development
- Less Impacting Land Development

Integrated Land Development Permit

Process



↑
Unchanged
↑

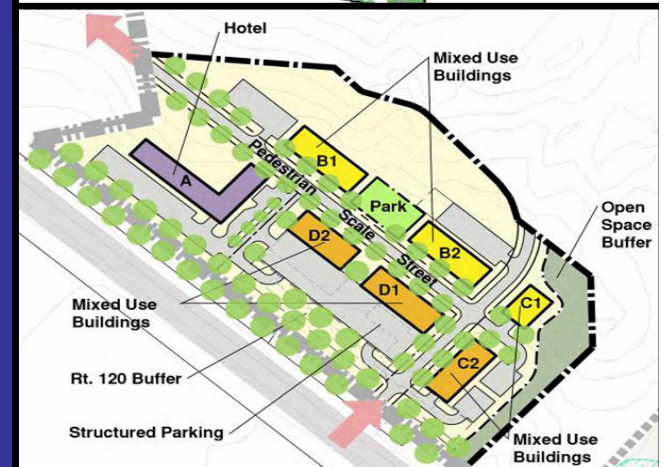
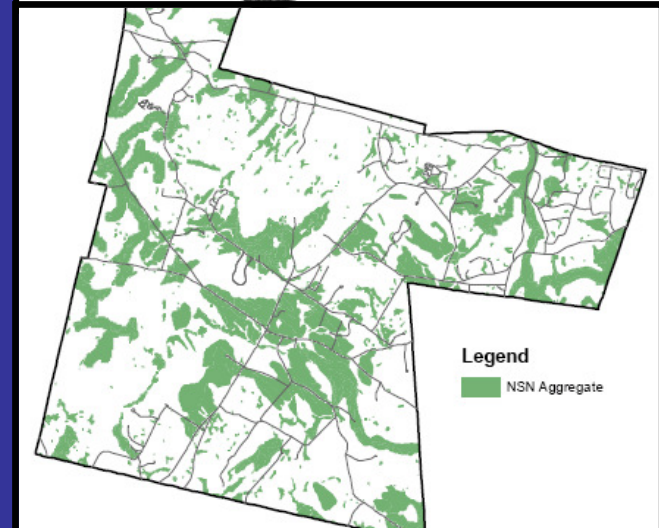
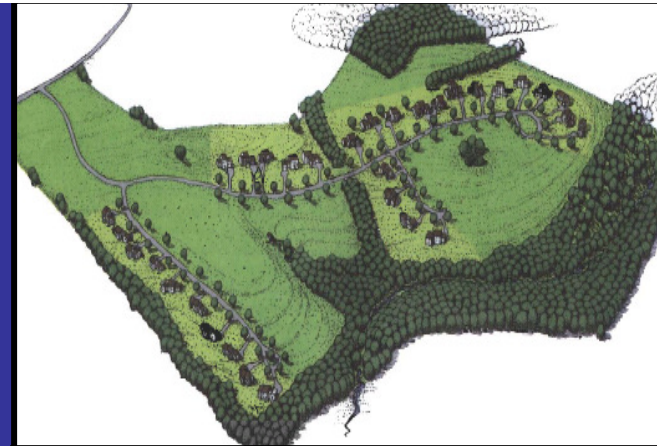
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Revised Process
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Opportunity to Redesign Current Process

Integrated Land Development Permit

Pre-Application Steps:

- Notification of & Consultation With Advisory Entities
- Submit Preliminary Plans, Supporting Information & Part of Fee to DES
- Pre-Application Technical Review Meeting with DES



Discuss Best Practices Beyond Regulatory Requirements

Energy Efficiency:

Reduced energy demand of structures

Water Use:

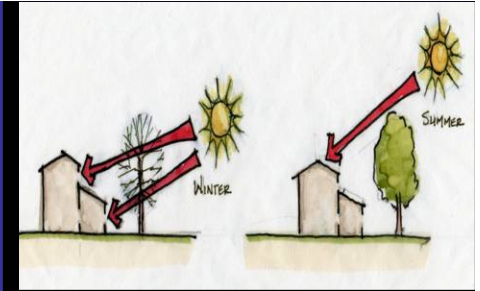
Lower water consumption by occupants

Stormwater:

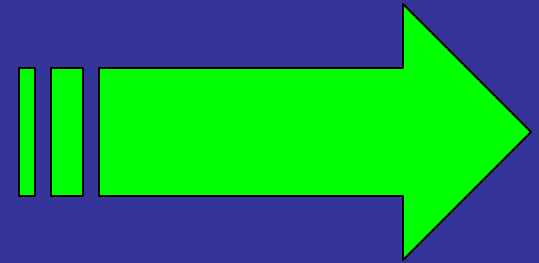
Reduce generation through design, retain & treat rainwater onsite (mimic natural condition)

Location:

In- or near town/city, redevelopment, avoid high-valued natural resource areas



Integrated Land Development Permit



Final Permit Application:

- Single Permit Application & Single Permit Issued
- Simplifying Application Process & Requirements
- DES Review and Decision within 45 Days (most projects)
- Option to Waive Current Technical Standards for Superior Environmental Outcome

Conclusions

- Lean Techniques are Valuable Tools for Improving Permit Work Processes
 - View it as a continuous effort (incremental change)
- Lean your business process BEFORE developing your IT solution
- Start SMALL & include RIGHT team members
- Communicate, communicate & communicate some more!