FLOOD REHOUSING

AU SABLE FORKS

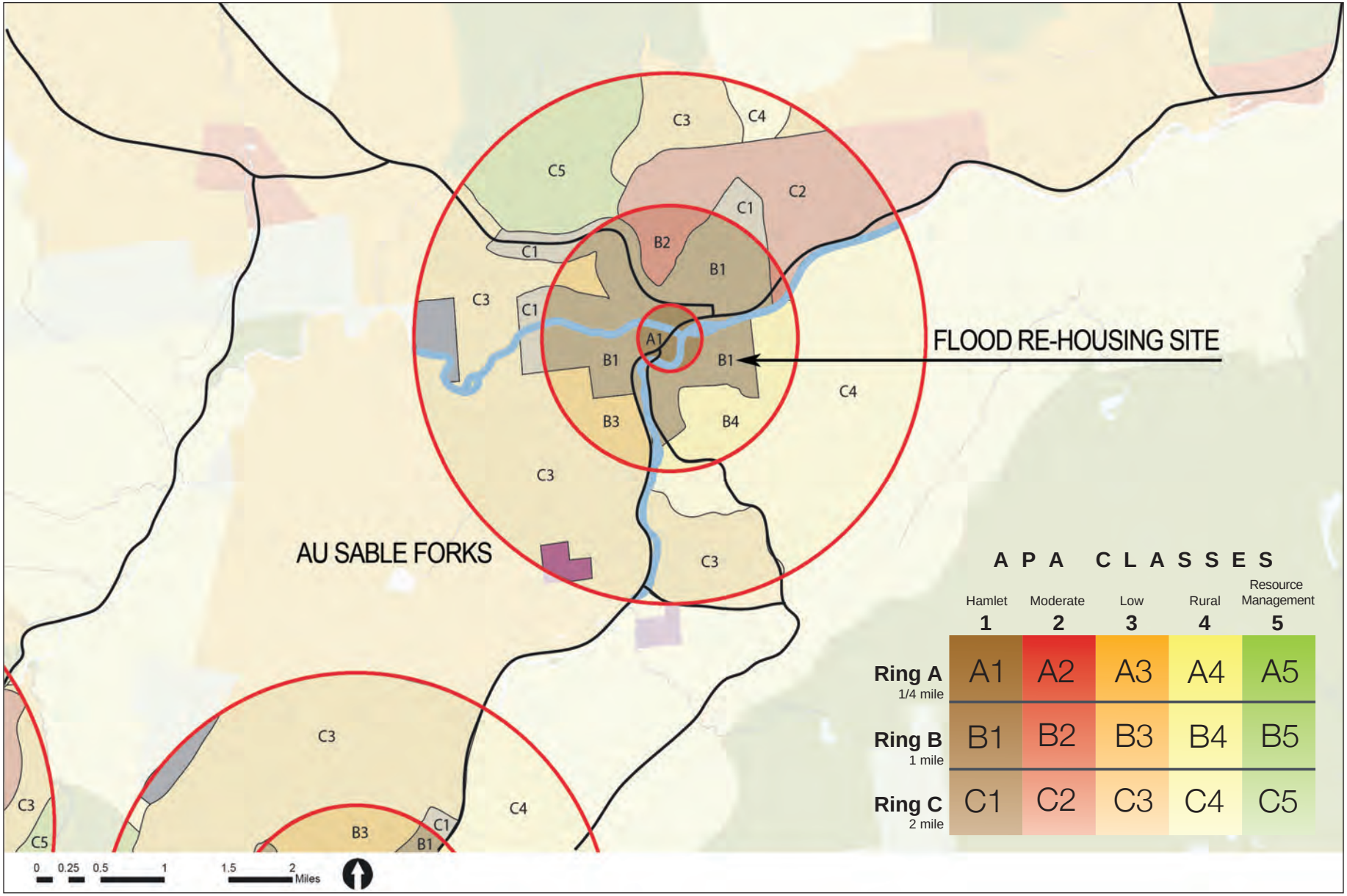
AU SABLE FORKS FLOOD REHOUSING

The best location for new residential development to offset loss of housing from Hurricane Irene and the subsequent County-sponsored, FEMA-funded flood hazard buy-out program was not immediately clear. Flooding and flood losses extended along the entire length of the Au Sable River in the Town of Jay. The directors of the project narrowed the site selection down to the hamlets of Jay and Au Sable Forks because of the availability in both hamlets of sizeable areas of APA-designated Hamlet "brown" that are not in the flood hazard zone.

Au Sable Forks ultimately was chosen because it is the commercial and residential hub of the town, is closer to Clinton County where many towns people work, and is where most of the buy-outs are located. Planning Board member and Town Historian, Sharron Hewston, suggested five sites in and adjacent to the developed core of the hamlet that are not in the flood hazard area. Using the "expansion model" developed in Hamlets 3 Phase 1 along with other considerations for development suitability and readiness, the project team evaluated the project sites, and determined that the Rolling Mill Hill site was the most appropriate and was selected for detailed design study (see suitability analysis on page 80).

An aerial view of the Rolling Mill Hill Road site selected for the Au Sable Forks flood rehousing project.

GROWTH RING ANALYSIS



The expansion model is organized around three concentric rings centered around the core of the hamlet. These rings represent approximate travel time to the hamlet center and when overlayed with the APA Land Use and Development map, outline potential areas of prioritized smart growth development (40). The Au Sable Forks flood rehousing site falls within the B1 Suitability: very high potential for outward, compact residential growth, targeted infrastructure and site improvements.

HISTORY

Au Sable Forks is located on the border of Clinton County (Town of Black Brook) and Essex County (Town of Jay). Situated on the confluence of the East and West branches of the Au Sable River, the hamlet gets its name, its industrial past, its great fishing and perhaps its greatest challenges from the river. The river, whose power was once harnessed to drive power saw mills and transport logs, was known to flood relatively frequently. However, on August 28th, 2011, from the fury of Hurricane Irene, the Au Sable River rose to 18.4 feet, over 11 feet over flood stage, during what was classified as a 500-year storm.

Au Sable Forks following Hurricane Irene.

Destructive flooding is a familiar site in Au Sable Forks.

Members of the H3P2 team at the undeveloped site.

PRESENT CONDITION

With a population of ~560, Au Sable Forks still feels the scars of Hurricane Irene. Although federal relief funds came to the hamlet and rounds of home buy-outs recently began, much of the town's housing remains in the flood plain. While resilient, the hamlet needs a long-term solution.

Au Sable Forks is a resilient hamlet that needs safer housing options for residents.

Members of the H3P2 team work with town representatives on site during an introductory workshop.

SITE SUITABILITY ASSESSMENT

The Au Sable Forks community and local leaders identified five potential hamlet expansion sites to build new housing for flood victims. The sites included three "inward" (i.e., within the footprint of the existing developed area) and two "outward" areas for expansion. The sites were assessed for their suitability for hamlet expansion (future development) using the Hamlets 3 model. Smart growth rings were applied to the hamlet to determine each site's "overlay" zone and description.

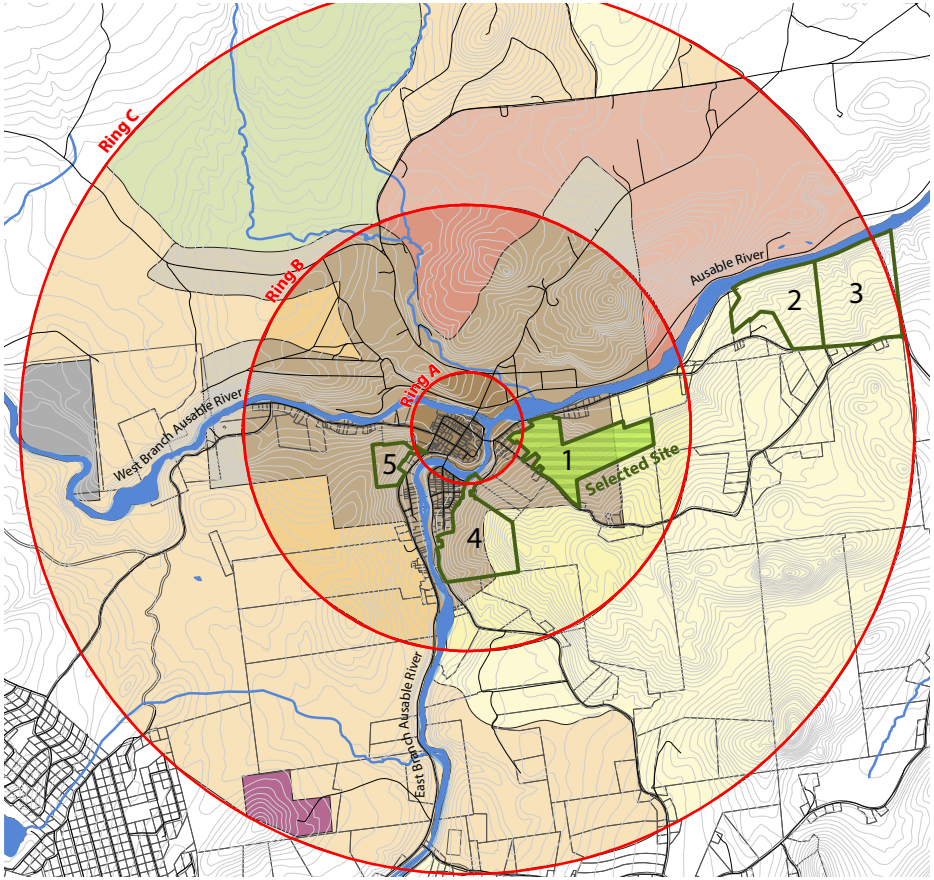
The suitability of each site was also assessed using criteria in the Hamlets 3 scorecard under section 1: Site Location and Infrastructure. The chart (bottom-right) shows how each site scored in six distinct categories.

Sites 1, 4, and 5 were each predominantly in Overlay Zone B1 (Ring B and APA Hamlet designation) making them highly suitable for residential expansion. Hamlet designation also means that these sites don't require APA map amendments. Sites 2 and 3 are in Zone C4 (Ring C and APA Rural designation) and are therefore suited poorly for future expansion.

Site 1 holds an advantage over 4 and 5 in "infrastructure and municipal services" because the site is partially located in the Water District while the other two sites are adjacent to the Water District. Site 1 is also currently for sale while 4 and 5 would require landowner negotiations.

The topography surrounding the confluence of the East Branch and West Branch of the Au Sable River consists of many areas of steep slopes. While none of the sites are as flat as the hamlet core area, Site 1 has a significant level area that is partially cleared giving it an advantage over the others. All of the sites have acceptable road access except for Site 5, which does not have a road into the property.

Finally, Site 1 scored above all other sites in terms of adjacency to existing development, helping to solidify its standing above the other sites. Based on this analysis, Site 1 was ultimately selected as best suited for hamlet expansion.



	Site 1	Site 2	Site 3	Site 4	Site 5
Hamlets 3 Overlay Zone	■■■■	■	■	■■■■	■■■■
Infrastructure & Municipal Services	■■■■	■■	■■	■■■	■■■
Acquisition Potential	■■■■	■■■	■■■	■■	■■■
Natural Constraints	■■■	■■	■■	■■	■■
Road Access	■■■	■■■	■■■	■■■	■■
Adjacent to Development	■■■■	■■	■■	■■■	■■■
Overall	■■■■	■■	■■	■■■	■■■

Most Suitable ■■■■ Average Suitability ■■■ Below Average Suitability ■■ Least Suitable ■

LOOKING FORWARD: AU SABLE FORKS

The purpose of hamlet expansion is to retain a viable and growing population by providing neighborhoods and community centers that are in harmony with the natural environment.

There are many excellent examples of sustainable housing design in rural settings.

Ecovillage at Ithaca, New York. Highly integrated co-housing where residents share energy production, community gardens, food preparation and meals. The development strives to have as low an ecological impact as possible while fostering a strong community.

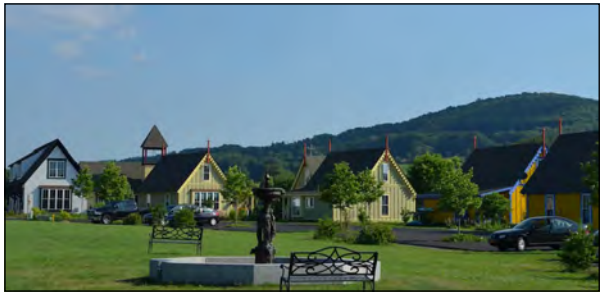
PRECEDENT: NEIGHBORHOOD DESIGN

Well designed neighborhoods can encourage community and a sense of place while minimizing ecological impacts. “Pocket Neighborhoods” are clusters of houses facing a common area, usually a green space. By clustering appropriately, privacy is maintained while fostering impromptu meetings and neighborhood cohesion.

Co-housing is similar in design but integrates public space facilities, ranging from essential functional areas like shared kitchens, laundry facilities and dining rooms, to less integral features like shared child-care facilities, gardens, internet access, recreational and child-play areas.

Building a variety of housing types makes a community more economically diverse, but also enables aging in place from the very young to retirees.

Nubanusit, New Hampshire illustrates innovative site design. While the development has multiple housing types, this image shows a 29-unit cohousing apartment building.



Rural pocket neighborhoods: Boiceville Cottages in Brooktondale, New York. The colorful storybook-like cottages face in clusters of threes while all surround common greenspace. The site features a variety of housing forms and a community building, combining privacy with community-facilitated design.
Courtesy of Boicevillle Cottages, boicevillecottages.com.

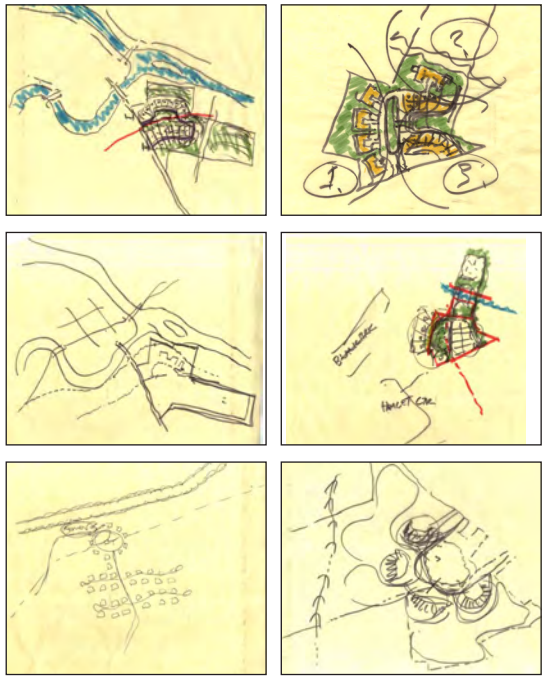
DESIGN PROCESS

Once Rolling Mill Hill was selected as the most suitable of the five sites considered for re-housing flood victims, the first round of sketches determined constraints of site access, the prominent swale in the middle of the property, the imposing power-line right-of-way, and undesirable slopes. Road and open space layouts for different housing clusters and types were studied in the second round of sketching, followed by a final round showing possible subdivision of lots that considers the phasing of construction to minimize site disruption.

Initial sketches explored a variety of cluster configurations in road layouts to facilitate phased development.

Second Round

First Round



Third Round

Draft sketches of the site showing evolving ideas on the new flood rehousing development. Notice the progression in the concept of "pocket neighborhood clustering."

HAMLET CENTER DESIGN ALTERNATIVES

The design on the Rolling Hill Mill Road site offers a variety of housing types enabling diverse income levels and multi-generational living arrangements. With ample common space, a site for a community garden, and some housing units in clusters or "pocket neighborhoods," the site arrangement engenders an open sense of community while preserving privacy. The site also features walking trails connecting with nature as well as other areas of the hamlet.

The flood rehousing site is located on high ground, in close proximity to the existing hamlet, and exhibits contemporary approaches to community design including cluster housing, energy efficiency, multiple housing types and sustainable development features.

SMART GROWTH APPLICATION

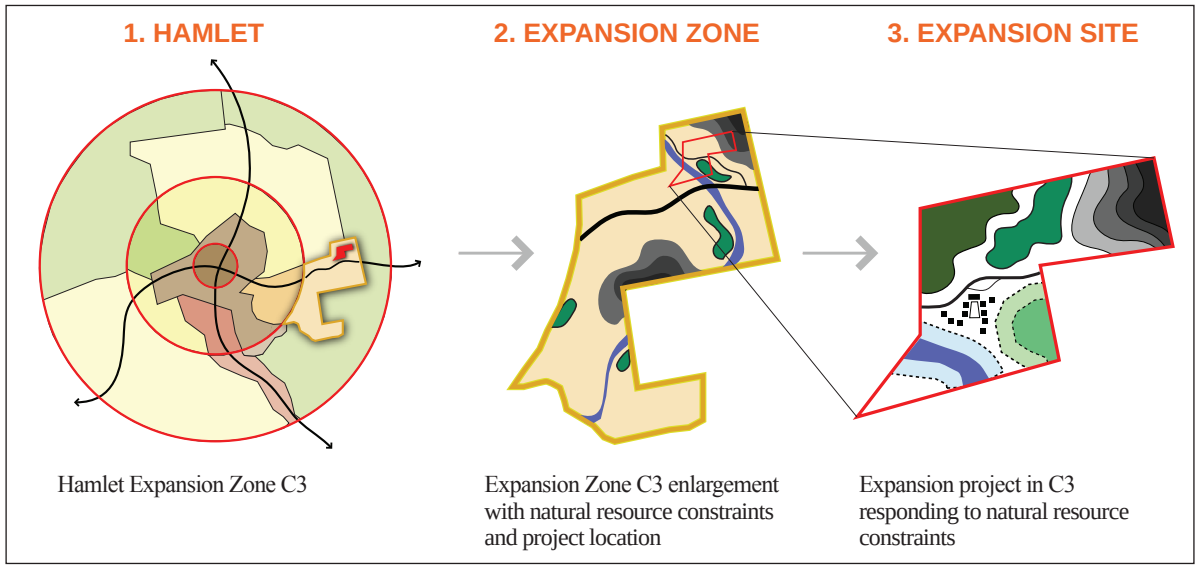
By directing infrastructure investments towards higher ground sites, Au Sable Forks can facilitate providing year-round, affordable workforce housing (9). The site, off Rolling Mill Hill Road, was chosen from among five possibilities—see site evaluation map and matrix (page 73). Designated as a "Hamlet" on the APA Map, the Rolling Mill site is located within the Hamlets 3 'B Ring' (B1 Overlay Zone) and most suitable for compact residential and mixed-use development—see suitability description. The site has good proximity, road access, power, views and solar orientation, and an owner eager to sell. The site is steep on one side but otherwise has minimal natural constraints (51). Designing in harmony with nature is essential.

Reminder: the numbers refer to pages in the H3 guidebook.

The concept plan shows two entrances and a 'U'-shaped access road through the site. Four different housing types are illustrated for a variety of occupants (age, single vs family etc): 4-unit clusters, semi-detached pairs, single homes, and multi-unit garden apartments. The site plan provides for common open spaces with amenities, community gardens and nature trails – and the layout follows contours of the land (10 & 54).

The compact housing clusters preserve ecosystems and promote a human-scale and sociable spaces (11). The Au Sable re-housing community could be organized around co-housing principles and could strive for energy independence (14).

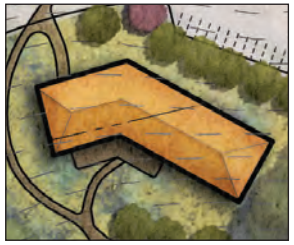
Designing in harmony with nature is essential.



The expansion model (51) is one element of the hamlet expansion process. A hamlet expansion plan follows a series of steps that engage the hamlet, expansion zone, and expansion site.

4-unit cluster

Semi-detached pairs


Multi-unit garden apartments

Single detached house

FEATURED SMART GROWTH PRINCIPLES

Boundaries: *Well-defined boundaries prevent hamlet sprawl and protect natural resources* (10).
The design follows the natural contours of the site, making a natural edge for development.

Contrasting boundaries of Rivello, Italy

Human Scale: *Buildings are built for people and should reflect their social, cultural and economic realities* (11).
'Pocket neighborhoods' are ideal for forming a natural sense of community lost in most housing configurations.

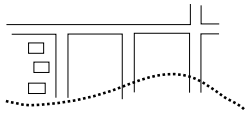
Human scale in Old Forge, New York

Sustainability: *Energy-efficient structures and walkable, diverse, compact neighborhoods are efficient, economical and ecologically-friendly* (14).
By deploying a diversity of housing type, compact micro-neighborhoods, safe disaster-resistent plotting, various community-centric initiatives and walkable infrastructure, the site can be viable now and into the future.

Open fields preserved in Tolleby, Sweden

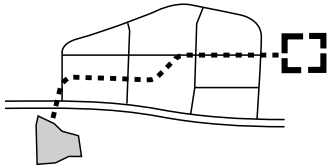
Preservation: *Critical resources are preserved through good planning* (16).
Although a green-field development, the layout and density of the development allows for conservation of the surrounding natural area.

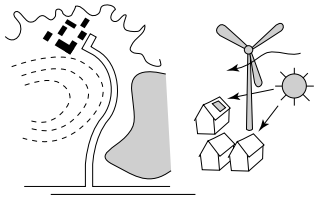
DESIGN TOOLS IMPLEMENTED (54)



Walk and Bike: *Trails provide safe routes and public access.*
The network of trails allow internal access and safe access to Adirondack nature and other areas of the hamlet.

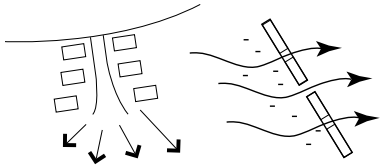
Connect Places: *Pedestrian paths connect important destinations.*
The proposals connect the hamlet core to a new waterfront in different ways.

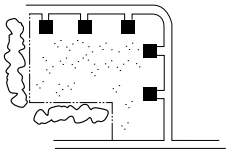




Design with Nature: *Landscape informs design, protecting sensitive ecologies.*
By following land contours, solar orientation and integrating with natural areas, the development complements, rather than contrasts, nature

Views and Vistas: *Good site design protects views and vistas.*
The open design retains the impressive views of the hamlet area.





Off the Field: *Smart outward development tucks buildings along natural edges.*
By deploying a variety of housing types, the contours of the land can be best accommodated.

WORKSHOP REVIEW

The on site workshop for Au Sable Forks took place on September 26th in the Jay Town Offices with 21 people attending including town citizens, representatives, leaders and the H3P2 team.

After introducing Hamlets 3 phase one and background information on hamlet planning in the Adirondacks, the H3P2 team presented conceptual site designs for smart growth projects in the hamlet to facilitate open discussion among workshop participants. Individual feedback was collected via worksheets evaluating various elements of the proposed designs.

This feedback, along with notes from the H3P2 team, have been collected and summarized in the following section. While this does not represent an exhaustive collection of the discussion, it is an effort to highlight general themes, concerns and ideas formed during the workshop.

WORKSHOP WORKSHEET

HAMLETS 3, PHASE 2 WORKSHOP: FLOOD REHOUSING, AU SABLE FORKS

Our sincere thanks for your attendance today. Your feedback is essential to the design of this project and we welcome open and honest comments. Please answer the following questions and turn this paper in after the meeting.

Do you support relocating housing away from the flood plain?	Definitely Yes	Yes, but not how depicted	Unsure	Definitely No	Comments:
Of the five potential sites, which would be best to develop? Why?	1	2	3	4	5
Do you like the idea of housing variety in the development?	Definitely Yes	Yes, but not how depicted	Unsure	Definitely No	
Would you like to live in a "pocket neighborhood"?	Probably Yes	Unsure what they are	Unsure if I'd like to	Definitely No	
Would you like to live in a co-housing arrangement?	Probably Yes	Unsure what it entails	Unsure if I'd like to	Definitely No	
Do you support having a community garden and other community oriented spaces?	Definitely Yes	Yes, but not how depicted	Unsure	Definitely No	
If given the opportunity, would you choose to live in this development?	Definitely Yes	Probably Yes	Probably No	Definitely No	
Please provide specific comments or modifications for the proposed plan (feel free to use the back of the page).	Comments:				

COMMUNITY FEEDBACK

100% (11) of worksheet respondents **supported relocating housing away from the flood plain** with 82% (9) agreeing that site one is the preferred location for the development but 9% (1) disagreed with the design and 9% (1) were unsure.

Perhaps sites 4 & 5 should be kept in mind for future smart growth.

82% (9) **like the idea of housing variety within the development**, with 18% (2) unsure. Cluster housing was viewed somewhat unfavorably, with 18% (2) unsure of what they are, unsure if they'd like to live in the arrangement and 27% (3) definitely not wanting to. Only 18% (2) would like to live in a cluster housing arrangement. Co-housing was viewed similarly, with 18% (2) unsure of what they are, unsure if they'd like to live in the arrangement but 36% (4) definitely not wanting to. Like cluster neighborhoods, only 18% (2) would like to live in a co-housing housing arrangement.

64% (7) **support having a community garden** and community space in the development, with 27% (3) being unsure.

Zac Boggs describes the proposed development design.

Perhaps indicating the best support for the project design, 55% (6) said they would definitely or probably live within the development given the opportunity; 36% (4) probably or definitely would not.

Given the support of the proposed design, discussion centered around implementation. Importance was given to marketing to those current living in the flood plain. With power currently delivered to the site, a willing seller and political momentum, the site selected is perceived to bring the greatest likelihood of successful implementation.

Bill Johnston discusses the Hamlets 3 project

The variety of housing types and arrangements, while odd to some, provides a mix of affordability, community preference and the ability to "age-in-place" (i.e. a variety of housing types enables people to stay within the community as they progress throughout various life stages). These methods have been used successfully in other areas and provide a unique sense of community.

"For a project of this innovative quality to work for a place like [Au Sable Forks], which is a modest community...the housing has to be affordable!"

MEDIA ATTENTION

September 28, 2013 www.valleynewsadk.com CV • Valley News - 5

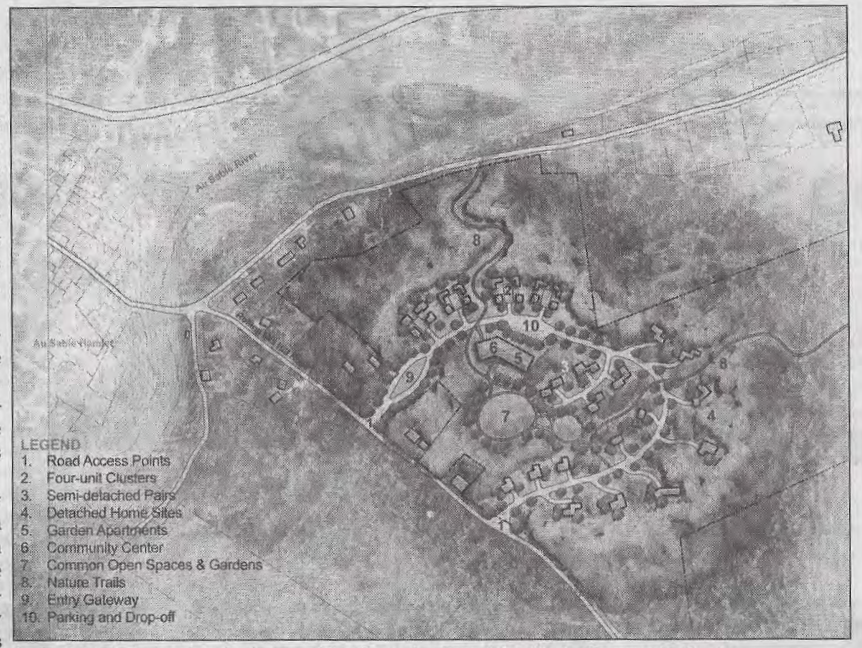
Smart growth project eyed in Au Sable Forks, four other hamlets

By Andy Flynn
andy@denpubs.com

ELIZABETHTOWN — Five Adirondack hamlets — including Au Sable Forks — were chosen to adopt smart growth concepts as part of the Hamlets 3 project, and residents are invited to explore these community development ideas and offer their suggestions during a set of workshops Sept. 26-28.

Three hamlets are from Hamilton County — Indian Lake, Blue Mountain Lake and Long Lake. One is from Fulton County — Caroga Lake. And the final one — Au Sable Forks — straddles two counties, Clinton and Essex.

The workshops will be led by Roger Trancik, of Urban Design Consultants in Ithaca. He is a professor emeritus of landscape architecture and city and regional planning at Cornell University and the developer of the Hamlets 3 project.



An Au Sable forks hamlet plan is part of the discussion Sept. 26 at the Jay Community Center.

"The whole idea is to plant these ideas," Trancik said. "We've had workshops previous to identify the sites, and now we're coming back with design proposals that we want the community to evaluate."

During the workshops, Trancik will have a worksheet and breakout groups where people can sketch out their own ideas based on some of the concepts, and evaluate alternatives.

The workshop dates are listed below.

- Caroga, 10 a.m. - 1 p.m., Thursday, Sept. 26, Caroga Town Hall
- Au Sable Forks, 6:30-8:30 p.m., Thursday, Sept. 26, Jay Town Offices
- Indian Lake, 10 a.m. - 1 p.m., Friday, Sept. 27, Indian Lake Town Hall
- Blue Mountain Lake, 3-6 p.m., Friday, Sept. 27, Adirondack Museum
- Long Lake, 9 a.m. - noon, Saturday, Sept. 28, Long Lake Central School

This is the second phase of the Hamlets 3 project: selecting five hamlets in the Adirondack Park to conduct a series of workshops to try to generate some projects based on the model of smart growth principles outlined in the Hamlets 3 book published in December 2010. The book, "Hamlets 3: Planning for Smart Growth and Expansion of Hamlets in the Adirondack Park," written by Trancik, was the first phase of the project. It built upon two studies from the 1980s: Hamlets of the Adirondacks 1 and 2.

"In other words, we're trying to put the book into action," Trancik said. "The upcoming workshops are the final series of workshops in those hamlets."

With the help of community leaders, Trancik has identified specific sites in each of the five hamlets to develop a project based on the principles and the planning model they developed in the first phase.

"Each hamlet has a very different set of problems and conditions, and we're trying to illustrate that," Trancik said. "You know these principles can apply in a lot of different contexts given the regulatory environment in the Adirondack Park. There are a lot of possibilities for sound, sustainable economic investment and good planning and design that can help these communities in the future."

The overall goal of the second phase is to "revitalize and empower Adirondack hamlets through direct training and example."

"Au Sable Forks has got a very special problem," Trancik said. "Hurricane Irene wiped out a huge part of that hamlet, so we're showing how they can expand very close to the hamlet, still within walking distance or a short drive, on to higher ground."

The project in Au Sable Forks will show a new residential cluster or what they call a "pocket neighborhood" development above the flood plain.

The Rolling Hill Mill Road site offers a variety of housing types enabling diverse income levels and multi-generational living arrangements, according to the plan.

"With ample common space, a site for a community garden, and some housing units in clusters or 'pocket neighborhoods,' the site arrangement engenders an open sense of community while preserving privacy," the plan states. "The site also features walking trails connecting with nature as well as other areas of the hamlet."

The other projects are: Caroga, new hamlet center; Indian Lake, core improvements to the downtown; Blue Mountain Lake, new hotel; and Long Lake, Jennings Pond Park.

Developing smart growth around existing hamlet centers has two major benefits:

1. It enables the community to integrate land suitable for development into the fabric of the existing hamlet.

2. It complements the protection of open space by discouraging visually unappealing and inefficient sprawl and strip development.

Smart growth principles include: form and place; boundaries; walkability and human-scale; access to nature; compact centers; energy and sustainability; jobs and housing; travel choices; visual quality; resource preservation; and collective decision-making.

For more information about Hamlet 3, visit online at www.apa.ny.gov/Documents/Reports/Hamlets/index.html.

HAMLETS 3

HAMLETS 3