

By Rebecca Quinn, CFM

Working with Your Elected Officials

In my teen years my parents subscribed to *The Reader's Digest*. I don't recall reading the short articles—I went for the joke pages and pithy sayings at the end of each article. I still collect memorable quotations and bits of wisdom. Recently, while sorting through the inevitable pile of paper, I ran across this one: "If you think you know everything, you can't (or won't) learn anything."

As floodplain managers, we have a lot to learn and a lot to share. Part of our job is informing those around us. To do that effectively, we need to maintain our knowledge base. In [previous columns](#) I've shared my go-to reading list for those new to our field (and those who need a library of references), and I've explained that I always research pertinent FEMA publications when formulating answers to tricky questions. Printed out and piled up, the dozen or so of my most used pubs would make a daunting pile. We're lucky to have PDFs and keyword-search capabilities—although I've also cautioned that relying on short-cut searches means you'll miss context.

Elected officials are among our most important constituents. Informed elected officials can bring about important changes to our rules and programs, help fend off damaging changes, and back us up when we have to make difficult permit decisions. Elected officials are faced with myriad issues ranging from the most basic to those that demand a special knowledge base. Unless your community has had recent flooding, or a developer or property owner is unhappy about the regulations, more than likely floodplain management doesn't make their top-ten list. What can you do to lay the ground work in advance?

One option is to prepare a short briefing to explain your program responsibilities and the basic requirements for development, and to highlight your objectives and challenges. Volume II of the ASFPM [Understanding and Managing Flood Risk: A Guide for Elected Officials](#) is a great starting point. The three-volume guide breaks down the key information elected officials need to understand floodplain management, support their professional staff, customize approaches to flooding, communicate concepts, and protect communities before, during, and after flood events.

The guide is formatted as a series of questions. Review the questions to determine which are most likely to be asked by your elected officials. Tailor your briefing to give answers that apply to your community. Volume II answers 24 questions in five sections:

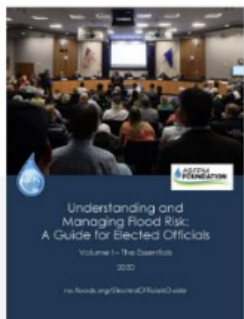
- **Why do communities manage floodplains?** What is the NFIP, how do we regulate floodplains, consequences for not enforcing or not adopting regulations, and whether regulations create unreasonable barriers to development.
- **The basics of flood risk.** What is the "base flood," how maps are prepared, that areas outside the mapped floodplain still have flood risk, and how flood risk may change in the future.
- **The basics of NFIP flood insurance policies.** Common questions citizen ask, including availability of insurance and how map changes affect NFIP flood insurance (pre-Risk Rating 2.0).
- **What makes an effective local program?** Defining minimum requirements for buildings, development, and infrastructure, how effective programs can be established and supported, consequence for not enforcing regulations, options when property owners ask for relief.
- **Strengthening your local program.** No Adverse Impact, the Community Rating Systems, and strengthening programs and regulations (higher standards).

Consider giving each elected official a hardcopy of the guide if you think that'll encourage them to scan before the briefing. While the total page count is higher, the actual contents of the three volumes combine to about 170 pages, with graphics and call-out boxes.

(Continued on page 13)

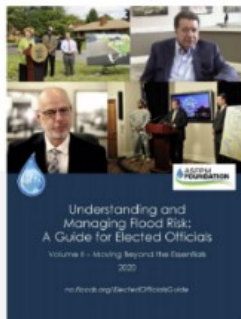
(Continued from page 12)

- **Volume I** speaks directly to elected officials to learn about flood risk in their communities, preparing for and recovering from floods, and communicating with citizens about flooding,
- **Volume III** highlights eight communities where elected officials have made changes in their floodplain management programs. Video interviews allow those leaders to explain what they did and to offer advice to other elected officials.



Volume I: The Essentials

Learn the essentials that elected officials need to know about flood risk in their communities.



Volume II: Moving Beyond the Essentials

Take a deeper dive into property protection, flood insurance, managing & strengthening local flood management programs, and more.



Volume III: Success Stories

Explore case studies and interviews from a variety of communities nationwide that successfully tackled flood mitigation.

Submit your own items or suggestions for future topics to column editor Rebecca Quinn, CFM, at rcquinn@earthlink.net. Comments welcomed! Explore back issues of the [Floodplain Manager's Notebook](#).



By Ray Carroll, MAI, SRA, CFM

A Cool Tool: Physical Life Calculator

There are some great tools available that appraisers use to estimate Actual Cash Value (ACV). An essential element of ACV appraisals is an estimate of physical depreciation, and the core of physical depreciation estimates is a forecast of building physical life. I recommend that appraisers learn about and use the Physical Life Calculator tool developed by Professor Craig Langston of Bond University, Queensland, Australia. I know of no other tool like it.

ACV appraisal reports developed using the Physical Life Calculator tool help floodplain administrators because:

- SI/SD appraisal review time is reduced.
- The building value will be the best allowable for the people involved.
- The depreciation estimate is scientifically supported and documented.
- Depreciation estimates will be building-specific and logically consistent.
- Depreciation estimates will meet SI/SD Desk Reference and USPAP requirements.

Physical Depreciation

Section 4.5.3 of the FEMA *Substantial Improvement/Substantial Damage Desk Reference* ([FEMA P-758](#)) says that for ACV, the depreciation deduction is only about the physical condition of the building. Obsolescence, whether functional (building design/desirability) or external (factors outside the building), is not recognized.

(Continued on page 14)

(Continued from page 13)

The process appraisers normally follow requires an estimate of total depreciation including physical deterioration and obsolescence. Standardized form reports appraisers use to estimate whole-property market value employ effective age/economic life concepts to develop depreciation estimates including both physical deterioration and obsolescence. This means limiting the discussion to physical deterioration can be confusing.

The SI/SD Desk Reference describes physical depreciation as loss of building value due to age, use, and neglect. Age and use is the same as wear and tear. All parts of a building deteriorate or wear out, some more quickly than others. Building components like concrete foundations, subfloor materials, internal framing, piping, and wiring age slowly and are seldom replaced. Exterior finishes like siding, paint, and roof covers, and mechanical equipment, wear out more quickly and are replaced more often. Interior finishes are usually renewed before they wear out because styles and owner desires change.

Because building components wear out at different rates, and some components can be replaced or renewed, physical depreciation does not plot as a straight line on a graph of depreciation over time. Under a program of good property management, the graph of percentage physical depreciation plots at a rate higher than the straight-line average, but periodically resets to a lower level of accumulated depreciation as major components like roofs, air conditioners, and the like are replaced.

Neglect is the same as bad property management. Appraisers call this deferred maintenance. Deferred maintenance is wear and tear that should be fixed right away to protect property value or to enhance property utility. When a building is not properly maintained, total depreciation increases and will graph above the long-term average rate of depreciation.

Options for Estimating Physical Depreciation

When appraisal reports that include estimates of physical depreciation are submitted with permit applications, local officials should ask what method was used to make those estimates. First I'll describe some options and their drawbacks, then I'll tell you what I recommend.

Guesswork: Not reliable, not supportable, and not compliant.

Published Tables: The SI/SD Desk Reference suggests there are published tables where the percentage of building depreciation can be referenced. Most published cost services compile tables of building economic life expectancy. Marshall Valuation Service is a good example. The depreciation tables are labeled "Effective Age" and "Typical Life Expectancy." The tables are said to be appraiser estimates, but they are about economic life, not physical life. Using tables like these is not appropriate for analysis of the ACV physical depreciation problem.

Logical Estimates: Building physical life is usually longer than economic life, so we can assume that physical life will be greater than the economic life projections published by cost services. That would imply a typical building physical life of something more than 65 years. Another consideration is what we know by observation. Most communities have examples of buildings more than 100 years old. In New England and elsewhere we find buildings more than 200 years old, and throughout Europe even older buildings are still in use. Reasoning from observation is sound, but the logical estimate method is difficult to apply to a specific building, and even harder to support differences between buildings.

Analysis Approach: Analysis of physical depreciation starts with a forecast of building physical life. An analysis of physical life answers the question, "If this building was properly designed, properly constructed, and properly maintained, how long would it stand?" If we know a building's actual age and we can forecast its

Physical Life

Appraisers define "physical life" as:

- An estimate of how old a building or improvement will be when it is worn out.
- The total period a building lasts or is expected to last, as opposed to its economic life.

(Continued on page 15)

(Continued from page 14)

physical life, then we can calculate the total straight-line percentage of physical depreciation at any time. If the property is neglected and there is deferred maintenance, then to obtain the amount of total depreciation, the cost to correct the deferred maintenance must be added to the straight-line dollar amount.

My Recommendation: The analysis approach is best for estimating physical depreciation because:

- Building physical life is forecast objectively using a physical life calculator tool.
- The physical life forecast applies to the specific building under analysis.
- The calculator tool output page is appropriate for inclusion in an appraisal report.
- The process accounts for deferred maintenance.

Professor Langston's Physical Life Calculator epitomizes the analysis approach. The algorithm used in the calculator assumes a base building life of 100 years, and then adds or deducts points (years) according to the responses to questions. Some conservatism is applied to the estimate and the forecast is rounded down to one of the following outcomes: 25, 50, 75, 100, 150, 200, 250 or 300 years. The calculator is unsuitable for temporary structures and for highly unusual or unique buildings, both of which require specialist judgment.

I discovered Professor Langston, his conference paper, and the Physical Life Calculator in 2014 after wrestling with appraisal of a 109-year old building. This tool is a must for developing reliable ACV estimates. The calculator tool, and other resources for appraisers, floodplain administrators, and the public, [are available here](#).

FEMA Region 3 Mitigation Coffee Break Webinars

FEMA Region 3 is hosting a webinar series for hazard mitigation planners and other partners interested in reducing risk in their communities. These "Coffee Breaks" are hour-long webinar sessions hosted every other month to provide mitigation best practices and highlight the work happening at federal, regional, state, and community levels to reduce risk across the region.

The Coffee Breaks are open to everyone involved in hazard mitigation, resiliency, or risk reduction planning in the public and private sectors, which includes community planners, emergency managers, floodplain managers, GIS technicians, government officials, contractors, and anyone else involved in the development and implementation of hazard mitigation and risk reduction strategies.

Here's what is slated so far:

Exploring Approaches to Plan Integration

May 5, 2021 11:00 a.m. ET - 12:00 p.m. ET

Plan Integration can be an overwhelming challenge. What tier of plans should I address: local, county, or planning district? How many plans within that tier should I review? What questions should I ask about these plans? Are there any resources to assist me in this process? Please join us for our May Coffee Break as we dive into questions about plan integration, as well as potential resources to assist you in this endeavor.

Identifying Technical Assistance Opportunities and Resources

July 15, 2021 11:00 a.m. ET - 12:00 p.m. ET

FEMA Region 3 and State Partners both provide an array of technical assistance and training opportunities to support local hazard mitigation planning. This webinar will provide an overview of some of these federal and state training opportunities, as well as how to develop and deliver a local workshop in your community.

[Register](#)