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Proposed Zoning Changes Could Harm Efforts to Maintain Navigable Rivers

In December 2015 the Mayor's office issued a press release promoting a change to the zoning laws regarding riverfront development within City borders. The claim made in the release is that the old zoning designations of "urban industrial" or "general industrial" are no longer useful and need to be changed to reflect the more commercial, residential, and mixed use development goals of the City.

While it's very clear that the City's once world class industrial might is in the past, the administration needs to be mindful of the reason the rivers are the attraction and resource they are. They exist as they do because they were developed to provide navigable waterways to transport the materials and products that supported the growth of an extractive and industrial economy that was the source of Pittsburgh's economic prowess for decades. Absent the navigation infrastructure that maintains the minimum depth pools we see today, Pittsburgh's rivers would revert to their natural state and that would mean frequent very low, unusable and far less attractive water levels. We expound on this point below.

The City's Planning Commission recently recommended an amendment to the planning code called the "Riverfront Zone Overlay District" (section 907.02.J) which would tighten the zoning laws. City Council has not yet approved the amendment. Overlay districts, as defined by the Department of Community and Economic Development's Center for Local Government Services, "...are placed over the original districts and apply additional provisions that are either more restrictive or expansive, or that may provide for different uses or design standards than the original district regulations." The overlay district would be in place for 18-24 months while new, more permanent, regulations are put in place.

There are recommendations that create concern found in the section of the amendments called the "Need for Interim Zoning" (907.02.J.2). The purpose of the new rules, among others, is to "design requirements for development consistent with the evolving character of the neighborhoods" and to give "neighborhood stakeholders input on projects which have a high impact on the public realm." That would appear to have far reaching and potentially powerful impacts on the types of uses and construction that would be permitted over a very wide area. Furthermore, another reason for the change in zoning, under the "Intent" section (907.02.J.3) is the desire for more "green space" and to provide enough of a riverfront setback to, among other things, create space for a linear, continuous riverfront trail. With many of the industries relying on riverfront access to the water, will they be pushed back to make room for trails? This can also limit the type of industry looking to move into the City as they will be barred from river access.

The consequences could result in chasing out or severely restricting expansion opportunities for the industrial or commercial firms currently using the rivers.

And what if these stakeholders succeed in chasing out industrial firms? As mentioned above the development of navigation infrastructure helped support industry through the 20th century by keeping river water levels stable and deep enough to carry barge traffic. Most of the population is either unaware, or only vaguely aware, that the rivers were dammed to create navigable waterways that enabled industry to thrive in Pittsburgh and up and down the three rivers. These locks and dams are owned and controlled by the US Army Corps of Engineers (USACE).

Because of the lock and dam system the USACE, in its *Upper Ohio Navigation Study*:

Pennsylvania (2014), estimates that Allegheny County has led the state in the number of boat registrations for a number of years. They also estimate that the number of non-registered boats (kayaks) went from 1,400 in 2004 to over 9,000 in just a few years.

The lock and dam at Emsworth is an important element in keeping the rivers in Pittsburgh at full pool level. This lock and dam were built in 1921 and were rehabbed in 1984. Thus it has been over 30 years since the rehab, and nearly 100 years since they were constructed. The USACE estimated that in 2008, 21.27 million tons of cargo passed through the Emsworth lock, down from 24.08 million tons in 1970. The report further explains that the area has shifted from being dependent upon coal and steel to one that is dominated by health and education. These sectors of course are not dependent upon the waterways.

In a very ominous sentence the USACE report says, “The question then becomes whether the continued maintenance of the navigation system is warranted given the potentially large investment that will be needed to modernize the aged projects.” The USACE report also notes that the movement to minimize the use of coal fired plants for electricity generation could lead to even less coal being moved by barge and that the “...effects on barge transportation of coal could be negative and greatly diminish the utility of the waterborne transportation system.”

According to the Port of Pittsburgh Commission (PPC), Pittsburgh is the third busiest inland port in the nation and twentieth busiest overall in the country. In 2013 it handled over 33 million tons of cargo. Each lock on the Monongahela and Ohio handles approximately 9,000 barges per year. And of course barge cargo hauling is much cheaper than other modes, costing between \$0.005 and \$0.01 per ton mile (PTM) which is much cheaper than rail (\$0.05 PTM) or truck (\$0.10 PTM). According to a PPC survey, receivers of sand and gravel, key components in cement and asphalt, stated that “trucking costs for local product are double the barge cost and the trucking cost for product delivered from outside the PPC District are triple the barge cost.” And that does not include the damage to area roadways if truck becomes the only method of transporting this aggregate.

Without the incentives to maintain the lock and dam system in the region, the navigation infrastructure will be in jeopardy. After all, the justification for the USACE to build and maintain the infrastructure was predicated on economic benefits derived through the shipper cost savings derived from transporting cargo on the waterways. Unless the USACE adopts new criteria for justifying expenditures for lock and dam maintenance and construction, the decline in water cargo traffic will eventually lead to lock and dam failures as spending for maintenance and upgrades falls.

Suspension of support has already happened on the upper Allegheny River where the last four locks on the river (Clinton, Kittanning, Mosgrove, and Rimer) have been closed except for special events to recreational boaters. A local non-profit raises money to keep locks operating on

the weekends during the summer. Will the stakeholders along Pittsburgh's riverfronts be willing to pay to keep locks and dams in good repair should industrial users and barge traffic be driven off the rivers? Would they be willing to pay more to repair roads that were damaged by the increase to truck traffic delivering goods such as sand and gravel for construction or even salt for keeping roads clear of snow? Recreational use of the rivers could become extremely problematic in many dry summer seasons.

As mentioned above, Pittsburgh's huge industrial prowess might be in its past, but industry still plays a very important role for the City and region. By utilizing the river, barge traffic provides the justification for keeping the deep, stable pools to which we have become accustomed for both recreation and other benefits such as stable water supply intake. Take the pools away and water intakes for municipal and industrial users would have to be rebuilt or other sources would have to be found.

While the new zoning overlay district proposal claims it will not affect existing businesses, the groundwork could be laid to push some "undesirables" out of the City by denying expansion or rehab opportunities. The unintended consequence of such a zoning change could lead to damage of the stable pools on the rivers that make them attractive which drew many of these new stakeholders to the City's waterfronts in the first place.

What is needed is close consultation with industrial users and prospective water transport users in the City and region to help promote the cargo shipping use of the rivers so as to maintain the economic benefits that the USACE—and Congress—must determine exist to justify large expenditures on the infrastructure. Otherwise the river communities will be forced to go to Congress to ask for money to maintain or rebuild the infrastructure on the grounds they want to use their boats or that their waterfront views will not be attractive without the dam created pools. That might well prove to be a very hard sell.

This should serve as a cautionary note for City zoning planners to be very careful about the tone they take in remaking the riversides. Indeed, the City ought to be working with other parts of the region and the industrial users of the waterways to make sure they are utilized even more than now. Driving coal barges off the rivers might seem like a great thing for the clean air proponents, but if the navigation infrastructure is allowed to deteriorate as result of low barge traffic, the long run implications for Pittsburgh and the other river communities could be enormous.

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