

**AGENDA**  
**Sustainable Storm Water Funding Task Force**  
**September 20, 2011**  
**City Hall, Room 209, 12:00 PM – 2:00 PM**

1. Introductions of Task Force members and meeting attendees.
2. Review and approval of the SSWFTF minutes from August 16, 2011.
3. Review of roadmap.
4. Review of Rate Methodology: How should the stormwater user fee be measured?
  - a. Charge on the basis of impervious area only.
  - b. Charge on the basis of impervious area plus total gross area.
  - c. Charge on the basis of intensity of development.
5. Review of Rate Structure: How should Portland charge single family residential properties?
  - a. Flat rate for all residential properties.
  - b. Several tiers (2-3) or more.
  - c. Individually measured charges.
6. Review of Exemptions:
  - a. Should Portland charge for roads?
  - b. Should Portland charge for public property?
7. Presentation and Discussion of Credits
  - a. What private actions and investments should qualify for a credit?
  - b. How much of the stormwater program should be available for crediting?
8. Discussion of public outreach plan.
9. Confirm Date for Next Meeting: The next meeting is currently scheduled for October 18, 2011
10. Adjourn

**MINUTES**  
**Sustainable Storm Water Funding Task Force**  
**August 16, 2011**  
**City Hall, Room 209, 12:00 PM – 1:30 PM**

**1. Introductions of Task Force members and meeting attendees.**

All members were present except for Todd Dominski, David E. Robinson, Dennis Martin, Curtis Bohlen, and John Cannell. Also in attendance was Randy Talbot, Matt Arco, Katherine Early, Doug Roncarati, Zach Henderson, Sadie Lloyd, and Dan Bisson.

**2. Review and approval of the SSWFTF minutes from July 19, 2011.**

Veroneau said that he was not at the last meeting and the minutes should reflect that. Gellerson made a motion to accept the minutes with the amendment that Veroneau was not in attendance. Brooks seconded that motion. The minutes were unanimously accepted.

**3. Presentation on roadmap, rate structure, and exemptions.**

After review of the last meeting outcomes, the Task Force reviewed the "Roadmap." Andy Reese stated that this roadmap was structured to enable the group to get to the finish line: being able to recommend a coherent and fairly complete framework to City Council by December. With such a framework the Council can, if they wish, authorize the City to begin the process of establishing a stormwater user fee.

Reese then reminded the Task Force of the general rate levels for both the sewer rate and the stormwater rate, and that it was a "zero sum game" in that if one rate decreased the other would go up. He mentioned that near the end of the process the potential allocation of CSO costs to a stormwater fee would be revisited.

**4. Discussion of storm water rate structure and discussion of exemptions.**

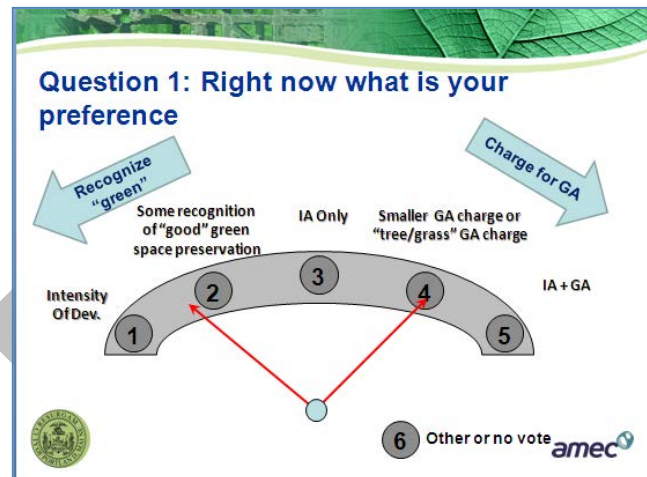
The three components of a rate structure were reviewed and a standard set of evaluation criteria noted. Reese also explained the difference between using an overall rate methodology (sort of a shotgun approach) for the rate structure versus using credits as sort of a rifle shot approach. You use the basic rate methodology to get things about right and then credits and exemptions to adjust from there for those who may outliers to the basic rate methodology.

The concept of a basic rate methodology was discussed and the differences between impervious area (IA) and the use of gross area (GA) discussed. Three basic rate methods were outlined and then variations on those suggested: IA only, GA+IA, and GA times an intensity factor. Pros and cons were discussed. It was explained that gross area approaches may better reflect the total runoff from a property while IA approaches reflected best the changes a property owner has done and benefits from.

The potential impact of the various methodology decisions on the “Dow Jones” properties was illustrated and reference was made to the table in the handout. The basic difference is how GA is handled – whether it is seen as a benefit or a liability in the basic rate methodology.

Significant discussion was had about the various options and each member was given a chance to express their concerns and preferences and what Portland was trying to encourage in terms of development.

Members were given a chance to vote along a continuum of choices from GA being seen as good to GA being penalized. There was a feeling that Portland was generally a fairly densely developed city and that recognition of open space in the rate methodology was not warranted. The weight of the voting centered on the use of a simple IA approach to the rate methodology but with there being an ability to recognize, probably through crediting, green space that had superior rainfall infiltration or treatment capabilities. This might include: urban forests versus simple turf cover, and the use of disconnection of impervious areas versus directly connected impervious areas.



The above figure was used to tally votes and to frame the discussion. The following voting was tallied:

- |                    |                    |
|--------------------|--------------------|
| Option 1 – 0 votes | Option 4 – 2 votes |
| Option 2 – 4 votes | Option 5 – 0 votes |
| Option 3 – 5 votes | Option 6 – 0 votes |

**Preliminary Policy Recommendation #1: Portland should use an impervious area rate methodology as the basis for its charge.**

**Preliminary Policy Recommendation #2: Private efforts and investments to reduce the impacts of development on parcels such as the planned and engineered use of tree cover or disconnection of impervious area should be recognized and rewarded.**

Single family residential (SFR) charges were discussed and various options commonly used elsewhere were detailed. The key options discussed began with a simple flat rate for all SFRs on one end of the continuum to individually measured SFRs on the other.

- Flat Rate – simple, low cost, few errors
- Two Tiers – more equity, slightly more cost, few errors
- Multiple tiers – more equity, smaller jump to next tier, more costly, more errors
- Multiple tiers + treat very large as commercial
- Individual measurements – most equitable, most costly, depending on unit size may be many errors

The median housing IA (rounded) is often used as the unit of measure for billing purposes (the Equivalent Residential Unit or ERU) and that number in Portland is about 2500 square feet. Such an approach is common and helps residents understand their property when compared to the “norm”. The group felt that such an approach was fine though it was discussed the billing “per 500 square feet” or any other unit was appropriate. The smaller the billing unit the more chances your estimate for a given property will be incorrect. The smaller the number of tiers the greater is the jump to the next tier – this is more important as the fee grows in size.

After thorough discussion the group agreed that the use of at least 2 tiers (six votes) was warranted and would support three tiers (or more) (five votes) if the housing stock or other good reason warranted its use.

**Preliminary Policy Recommendation #3: Portland should use a simplified charge for single family residential charges consisting of two or three tiers of charges if the housing stock analysis warrants more than two tiers.**

The group discussed how public roads would be treated. Reese presented detailed information on the rate implications of billing for roads, impacts on state and federal roads, the sources of funds to pay for roads (general fund), current funding sources (sewer fund), and how others have done it.

Most stormwater user fee programs do not charge for roads, for a variety of reasons. However, it is legal and can be done. Roads are a shared significant part of the total impervious area of the city (33%) and the impacts of roads could logically be allocated across the rate base on the basis of impervious area if the decision is made not to charge for roads explicitly.

One argument made was that, if charges for roads were levied (and paid through the general fund) that tax exempt properties would then not participate in those charges forcing that 33% of the fee onto property taxpayers. This was seen as inequitable by most. In addition in Maine there is no ability to levy sales or other taxes so the thought was to conserve taxes and not spend them on stormwater where another funding source was available.

The ability to charge for roads but at a reduced rate was mentioned and had some interest. In the end the group felt that either no charge for roads (5 votes) or a greatly reduced charge (4 votes) was warranted.

**Preliminary Policy Recommendation #4: Portland should not charge itself for its roads or, if further study warrants it, charge a greatly reduced fee for roadway surfaces.**

The group ran out of time and deferred the discussion of exempting public buildings until the next meeting.

## **5. Discussion of public outreach plan.**

The group ran out of time and deferred this discussion until the next meeting.

**6. Confirm Date for Next Meeting: The next meeting is currently scheduled for September 20, 2011**

**7. Adjourn**



## Stormwater Credits

*The purpose of this handout is to provide background information to assist the Task Force in decision making on the use of credits in a stormwater rate structures.*

### Stormwater Credits - Overview

For the purposes of the Task Force a credit can be defined as an ongoing reduction in a property's calculated stormwater fee that is provided for some rational and legal reason typically related to private investment for a public good.

### Basis for Stormwater Credits

Credits are important in several ways:

- Credits typically do not have significant total stormwater user fee revenue reduction potential (often less than two to five percent), but may build support to the stormwater user fee concept from large fee payers or others who would qualify for a credit.
- One way a fee differs from a tax is that the customer must be able to impact the amount of service they receive and that the provision of service must be somewhat qualified as voluntary in nature. A credits system is essential to satisfying the requirement of a fee versus a tax.<sup>1</sup>
- Credits are also one of only a few ways stormwater user fee systems have to encourage sound development using a "carrot" rather than a "stick". As such they carry an importance far beyond their actual revenue significance.

### Credits Versus Incentives or Exemptions

It is important to note the difference between the term "credit" and the term "offset", "incentive", or "exemption".

- A "credit" is a permanent reduction in the user fee as long as the recipient applies for and continues to maintain its reduced impact on the system or program.
- The term "offset" refers to a one-time reduction in an overall fee.
- An "incentive" is typically a one-time monetary or other inducement to support a community objective.
- An "exemption" is the waiving of part, or all, of the fee in recognition of some extraordinary circumstance peculiar to an individual or parcel for which the local government determines an exemption is warranted.

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<sup>1</sup> Most customers pay some sewer or water fee due to the "availability" of the service. Thus a stormwater user fee mimics water and sewer utilities not because a customer can refuse service and payment of the fee, but that they can do certain things to reduce their demand or use of the public system and thus reduce their fee as well.



## Credits Issues

There is a downside to credits too. They can be: (1) complex and costly to initially determine, (2) hard to administer and police, (3) not large enough to actually encourage good stormwater behavior, and (4) they are often mismatched in the development process in that it is the developer who most often must make the decision to build something credit-worthy into the site but it is not the developer who profits from the ongoing credit – it is the owner.

Recall that the amount of revenue required is almost a fixed number. Except for program cost reduction credits it is difficult to assign overall program cost reduction to individual private actions. It is a zero sum game – if credits are generous then the rate for others goes up.

## Stormwater Credits – Policy Decisions

The details of such policy decisions are left for later but two key questions should be discussed by the Task Force:

### Question #1 – Basis for and Type of Credits

*What private actions and investments should qualify for a credit? Why should they qualify?*

### Question #2 – Extent of Credits

*How much of the stormwater program should be available for crediting? Or, stated differently, how generous should the credit be?*

## Question #1 – Basis for and Type of Credits

*What private actions and investments should qualify for a credit? Why should they qualify?*

Prior to discussing these various bases for applying credits lets remind ourselves that any user fee itself must have some basis for calculation and application. That basis is some measurement of “use” of the public stormwater system or “use” of the results of actions on the public system being applied upstream of me, around me, or within Portland. During the last meeting we defined our measure of “use” of the system as the amount of impervious area on a parcel – that is, how has a property owner made use of his or her parcel in such a way as to impose an increased demand on the public system?

In a perfect world credits should be derived and applied on the same basis as rates. They are earned. In that utopian world there are really only two main bases for a stormwater credit that pass this rate-paralleling muster:

1. I obtain a stormwater credit because I take some (normally privately funded) ongoing action on my property that reduces its actual use of, or impact on, the downstream stormwater system to a level below that which would be reflected in the physical parcel measurement that determines my user fee.
2. I do some (normally privately funded) activity, operate some program, or perform some function that, in an ongoing way, reduces the overall cost of the stormwater program for the local government, and thus obtain some, or all, of my cost of such performance back in the form of a credit.

The typical basic guiding principle in developing and granting stormwater credits based on impact and cost reduction can be stated as:



***Credit should be given for approved private investments or actions commensurate with reduced public cost, or which produce a stormwater related public good which is ongoing.***

It is the consultant’s recommendation that this guiding principle be used for all considerations for stormwater credits. Other reductions or exemptions may be provided but should be done outside the formally adopted rate structure as a separate City program.

Under this guiding principle, there are a number of ways to look at how credits could theoretically be justified and applied. Table 1 gives some more common examples. As you think about these credits keep in mind that some of them could equally be applied as part of the rate structure and not as a rate modifier. For example, disconnected imperviousness or green roof areas could simply be billed at a lower rate.

**Table 1. Examples of Credits on Two Bases**

<b>Credits Based on Individual Parcel Reduction of Use or Impact</b>	<b>Credits Based on Private Actions Leading to a Potential Reduction of Overall Local Program Cost</b>
<ul style="list-style-type: none"> <li>• Peak flow credit for detention</li> <li>• Volume reduction credit for infiltration</li> <li>• Pollution credit for BMPs designed according to local standards</li> <li>• Green design credit for the provision of green sheet flow and infiltration areas with disconnected imperviousness</li> <li>• LID or green design credit for designing a neighborhood with embedded LID principles and approaches</li> <li>• Oversize credit for provision of additional storage volume above design standards</li> </ul>	<ul style="list-style-type: none"> <li>• Stormwater education credit for schools and/or others</li> <li>• Area maintenance credits for performing maintenance on large urban areas or roadways</li> <li>• Industrial NPDES credit for complying with an individual NPDES stormwater industrial permit</li> </ul>

## **Credit Based on Reduction of Individual Use or Impact**

The basis for an individual parcel’s stormwater utility fee is twofold: the total cost of the stormwater program, and less directly the impact or use of each property on the stormwater and stream systems. This impact is typically approximated by measuring impervious area because there is a relationship between the three main increased impacts of development: peak flow, volume of runoff and pollution.

Most cities that have used an impact-based crediting mechanism have assigned credits based on meeting design standards required at the time of development or redevelopment. For example, if you meet the peak flow detention requirement than some portion of the total fee is available to you as a credit recognizing that your property does not generate runoff to the same extent its impervious area would indicate.

In Portland’s case there is an array of requirements that have differed in terms of the cost of implementation over time. Since 2006 there has been a significant increase in the cost of private development-related stormwater infrastructure to handle runoff quality and an increase in the peak flow detention demands. Prior to that time there was only a peak flow requirement.



It must be realized at the outset that a credit is not a strict engineering calculation. It does not have to be exactly predictive of, but only bear a relationship to, reductions in impact. Therefore great simplifications, not acceptable for engineering applications are quite adequate for crediting mechanisms.

Looking at the array of requirements that reduce a property's impact on, or use of the stormwater system, the following simplification is recommended:

- If a peak flow credit is offered it should reflect the current flood control requirements to be fully realized, but that a lesser credit is available for those who constructed and currently maintain flood control structures approved and constructed under an older design standard.
- If a water quality credit is offered it should reflect only major differences in requirements among the six categories of stormwater quality control and that staff are directed to determine appropriate discrimination tiers.

**Option 1 – Should Portland offer a peak flow credit?**

**Option 2 – Should Portland offer a water quality credit?**

**Option 3 – Is there another impact reduction credit that Portland should offer?**

## Credit Based on Reduced Cost of Service

**Option 4 – Should Portland offer a cost reduction credit, and if so, for what activities?**

Any actual cost reductions from constructing individual stormwater control structures are impossible to calculate. However, there are individual actions a property owner can take whose positive impact can be estimated.

Maintenance Credit. For example, cities spend a certain number of dollars per acre on major and minor system maintenance. Larger properties that maintain their own systems and through-flowing public systems to a certain acceptable standard reduce the city's cost by removing their large area from public responsibility. This can be recognized through a credit equal to the area they remove from the city's responsibility or the actual cost of service reduced.

Education Credit. Stormwater quality compliance requires a mandatory education of citizens. In some cases the public education capability of local schools (and even churches in one case) is recognized and credited if the local entity meets basic standards in terms of student contact hours and curriculum content.

NPDES Credit. Another example is a provision of credit for those industries, schools, and other facilities that have and fulfill the conditions of an industrial NPDES permit for stormwater management. It is argued that they must perform extraordinary activities beyond those of other properties and should thus be credited. What is ignored in these cases is the basis for such industrial permits – these types of properties have higher rates or more toxic pollutants than average properties and thus require an individual industrial permit.



## Question #2 - Extent of Credits

*How much of the stormwater program should be available for crediting? Or, stated differently, how generous should the credit be?*

Once a cost reduction or impact reduction crediting mechanism is decided upon the next question to answer is the amounts of credit offered. By choosing among different basic approaches a local government can either limit or expand the portion of the fee available for crediting. The generosity of the credit varies along a continuum from "Scrooge" to "Santa". Along that continuum there are mile posts. Let's discuss two extremes and then how mileposts might be established in the middle to "cap" credits.

### **Scrooge - Development Bears its Own Burden**

This approach recognizes the fact that large concentrated impervious areas (such as shopping malls or industrial sites) place a tremendous strain on the stormwater system at the point of release and downstream. It is further assumed in this approach that the stormwater utility fee is set at a low level to provide an average level of maintenance and capital improvements, but is not designed to be able to mitigate impacts of the type experienced by the more intense developments. Such concentrated impervious areas would be considered well over this level. Detention or other controls are then required by the city to bring the impacts of a site to within some "norm" for development intensity which can then be handled by the utility. It is considered a cost of doing business and should not be credited. For example, for peak flow control one city requires all developments to reduce peak flows to a level reflected by single-family half-acre lot development. Any detention structure that accomplishes only this minimum amount of peak flow reduction is not eligible for credit. The overall cost of the stormwater program is built on this private level of discharge and such is expected of all property owners. Only approved reductions beyond this level would be credit-eligible.

This logic fails somewhat when different ages of development had to build to differing standards creating an ongoing inequity in the cost of new development and in ongoing maintenance cost.

Under this philosophy few, if any, sites would qualify for a credit unless they went beyond some pre-established minimum set of requirements – though it is unclear at this time what that minimum might be.

### **Santa - Credits are Provided on the Same Basis as Fees**

This approach fully matches the premise used for justification of the user fee: impervious area as a surrogate for demand placed on the system. The fee charged goes to pay for all parts of the stormwater program, not just directly applicable capital or maintenance operations. A direct relationship exists between impervious area, total program costs and the total fee. This approach provides the largest of the credits under the impact-cost crediting basis (in one case up to 100 percent of the total fee). This approach recognizes that much of the program cost is not tied to impervious area (administrative, NPDES costs, planning, etc.) but chooses to apply the credit solely on the impervious basis of the fee. The total fee is based on impervious area, so the credit is too. In this situation, limits are placed on the amount of credit granted through more stringent technical criteria – that is the way credit amounts are limited, not through restriction of the fee amount available for crediting. For example, in one city part of the credit (25%) was applicable to volume of flow increases would only be available for true volume reductions through infiltration, evaporation, stormwater reuse or diversion or stormwater collected in detention ponds and then pumped to the wastewater system for treatment and discharge to receiving waters.

Under this philosophy 100% of the user fee would be available for crediting if the property fully met the required standards for the key impacts: peak flow, water quality, and sometimes volume control.



## Setting Caps in Stormwater Credits

This approach attempts to reasonably limit the amount of the user fee available for crediting. There are several ways this is done:

### Option 1 – Fixed Costs Should not be Credited

Under this option it is recognized that certain fixed costs (e.g. billing costs) or non-impact-related program costs (e.g. public education) would never be reduced through the use of peak or water quality improvement structures and that these fixed costs should be reserved from crediting effectively capping the stormwater credits.

For Portland this amounts to about a 20% reduction in available user fee for credits (i.e. 80% cap):

- 5% fixed billing and administrative costs
- 15% program costs not directly attributable to flood control or water quality impacts

### Option 2 – Ability to Mitigate Actual Impacts

Under this option it is recognized that simply meeting the standards does not actually mitigate all the impacts of development. For example, simply limiting the peak flow at the site outlet to a predevelopment peak does not solve all flooding problems further downstream where the actual increase in volume is the problem not just the timing of the peak flow. Or treating 90% of the developed property still allows 10% to go untreated, and the portion treated is never 100% effective.

This is VERY subjective but would probably be in the range of 10-30% reduction in user fee available for credits.

### Option 3 – Shared Impervious Area is Not Treated

Under this option it is recognized that the impervious area of roads is not being paid for by anyone (they are exempted per previous policy recommendation) and the actual cost of the roadway impervious area impact is being borne by all ratepayers generally in proportion to their site impervious area (i.e. the bigger parking lot you have generally the more you benefit from roads). Thus, if roads are 33% of the total impervious area then that percentage of the fee should not be credited – if it was to be credited that would shift the road costs onto other rate payers.

This amounts to a 33% cap on the user fee available for crediting.



# **Sustainable Stormwater Funding Task Force**

**September 20<sup>th</sup>, 2011**





# Presentation

1. Roadmap Review
2. Review from Last Meeting
3. Public Property
4. Credits



# Presentation

1. Roadmap Review
2. Review from Last Meeting
3. Public Property
4. Credits



# Roadmap

- **August – Rate Structure**
  - Impervious and gross area options
  - Residential options
  - Handling of roads, public property, and undeveloped land
- **September - Credits**
  - Basis for and types of credits
  - Amount of credits
- **October – Cost/Program**
  - CSO cost allocation
  - Program five-year plan
  - Functional organization
  - Appeals process
- **November - Billing**
  - Billing
  - Customer service
  - Timing and scope
  - Public Involvement
- **December- Final**
  - Final Recommendation and
  - Implementation Steps/Cost





# Presentation

1. Roadmap Review
- 2. Review from Last Meeting**
3. Public Property
4. Credits



# Basic Rate Methodology

**Preliminary Policy Recommendation #1:  
Portland should use an impervious area rate methodology as the basis for its charge.**

**Preliminary Policy Recommendation #2:  
Private efforts and investments to reduce the impacts of development on parcels such as the planned and engineered use of tree cover or disconnection of impervious area should be recognized and rewarded.**





# Residential Charges & Roads

## **Preliminary Policy Recommendation #3:**

**Portland should use a simplified charge for single family residential charges consisting of two or three tiers of charges if the housing stock analysis warrants more than two tiers.**

## **Preliminary Policy Recommendation #4:**

**Portland should not charge itself for its roads or, if further study warrants it, charge a greatly reduced fee for roadway surfaces.**



# Presentation

1. Roadmap Review
2. Review from Last Meeting
3. **Public Property**
4. Credits



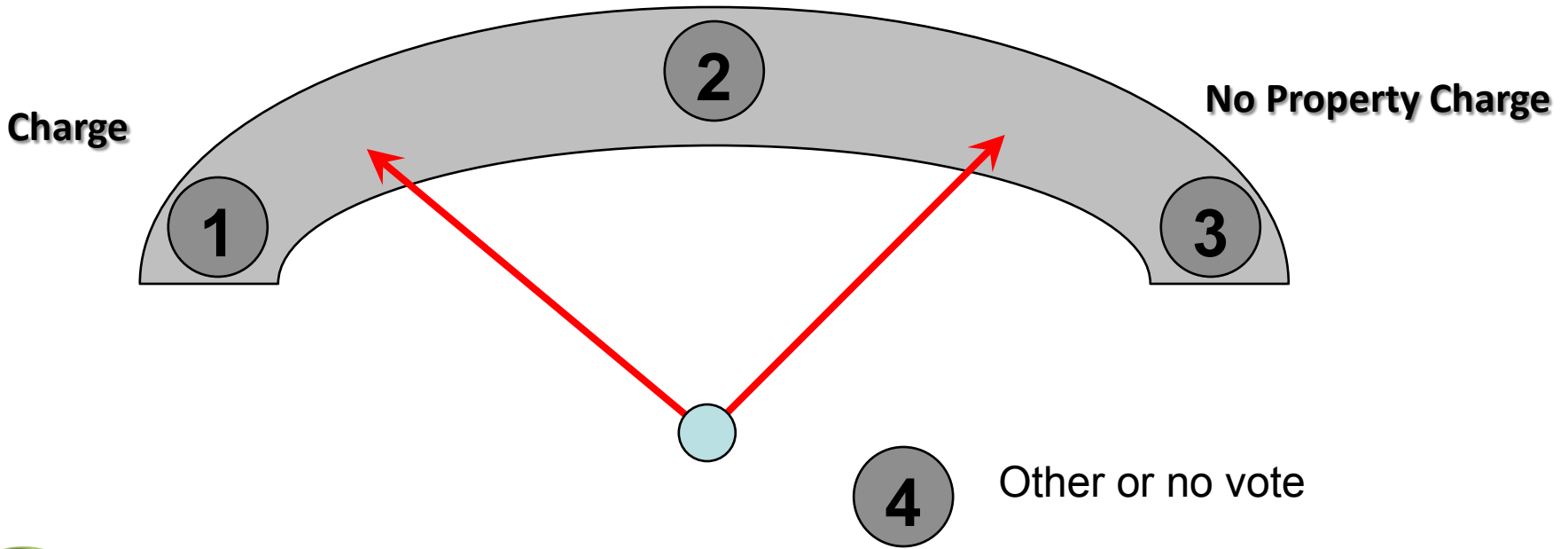
# Facts About Public Buildings

- **7.2% of Impervious Area (IA)**
  - \$288,000/year
- **Most do charge**
- **Some do not charge**
  - City departments are non-revenue producing
  - Say it is a “wash” and that budgeting new tax increases is a non-starter
- **Pros to charge:**
  - Consistent with rate structure
  - Allows charges for state and federal buildings
- **Cons to charge:**
  - Taxpayers must come up with the money



# Your current preference for public property charges

Reduced Property Charge





# Presentation

1. Roadmap Review
2. Review from Last Meeting
3. Public Property
4. Credits

**Policy Question #1:** What private action and investment should qualify for a credit?

**Policy Question #2:** How much of the stormwater program should be available for crediting and how generous should the credit be?





# Stormwater Credits - Overview

- Are a legal “requirement”
- Normally little revenue impact
- Offers a carrot
- Credits are earned, not given, and not an “exemption” or “incentive”
- Ongoing recognition of ongoing private investment for a public good



# Stormwater Credits – Downsides

- Can be complex to administer
- May not be large enough to cause any change
- Mismatched to development – owner not developer gets them
- Zero sum game – the more you give away the higher everyone else's bill is – not always an immediate program cost reduction





# Stormwater Credits – Two Bases


## 1. I reduce my impact – the IA measure does not reflect my true impact

- Often tied to meeting design criteria
- % of fee can be subjective

## 2. I reduce the city's cost through my private efforts

- Take on a public responsibility such as education or maintenance





***Credit should be given for approved private investments or actions commensurate with reduced public cost, or which produce a stormwater related public good which is ongoing.***





# Impervious Area Impacts

- **Four times the peak flow leading to potential flooding and Combined Sewer Overflows (CSO)**
- **Two to four times the volume and pollution leading to maintenance issues and pollution (including CSO)**
- **In Portland's case – as volume and peak flow increase IA pollution increases too in combined sewer area**



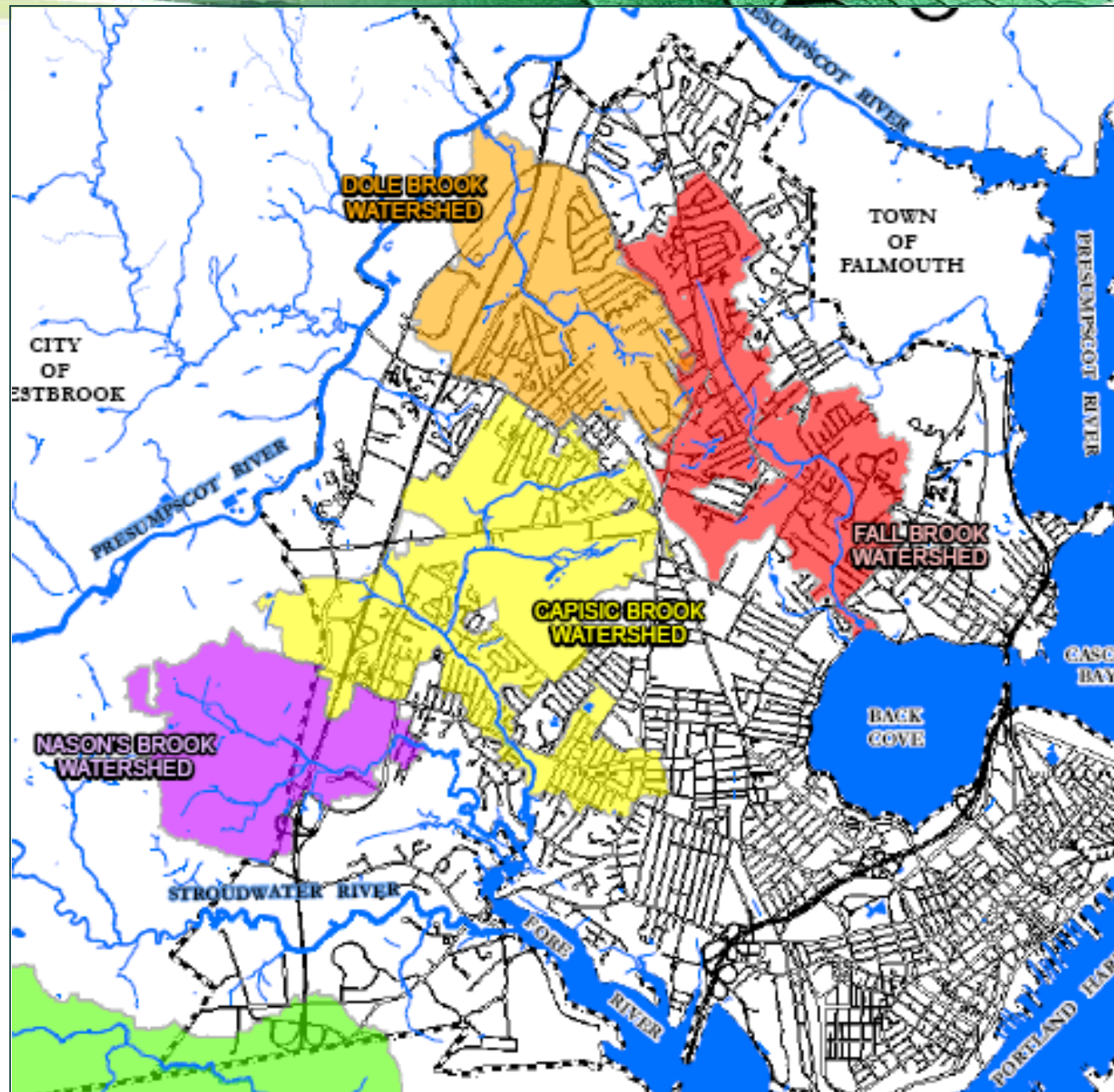


# Design Standards

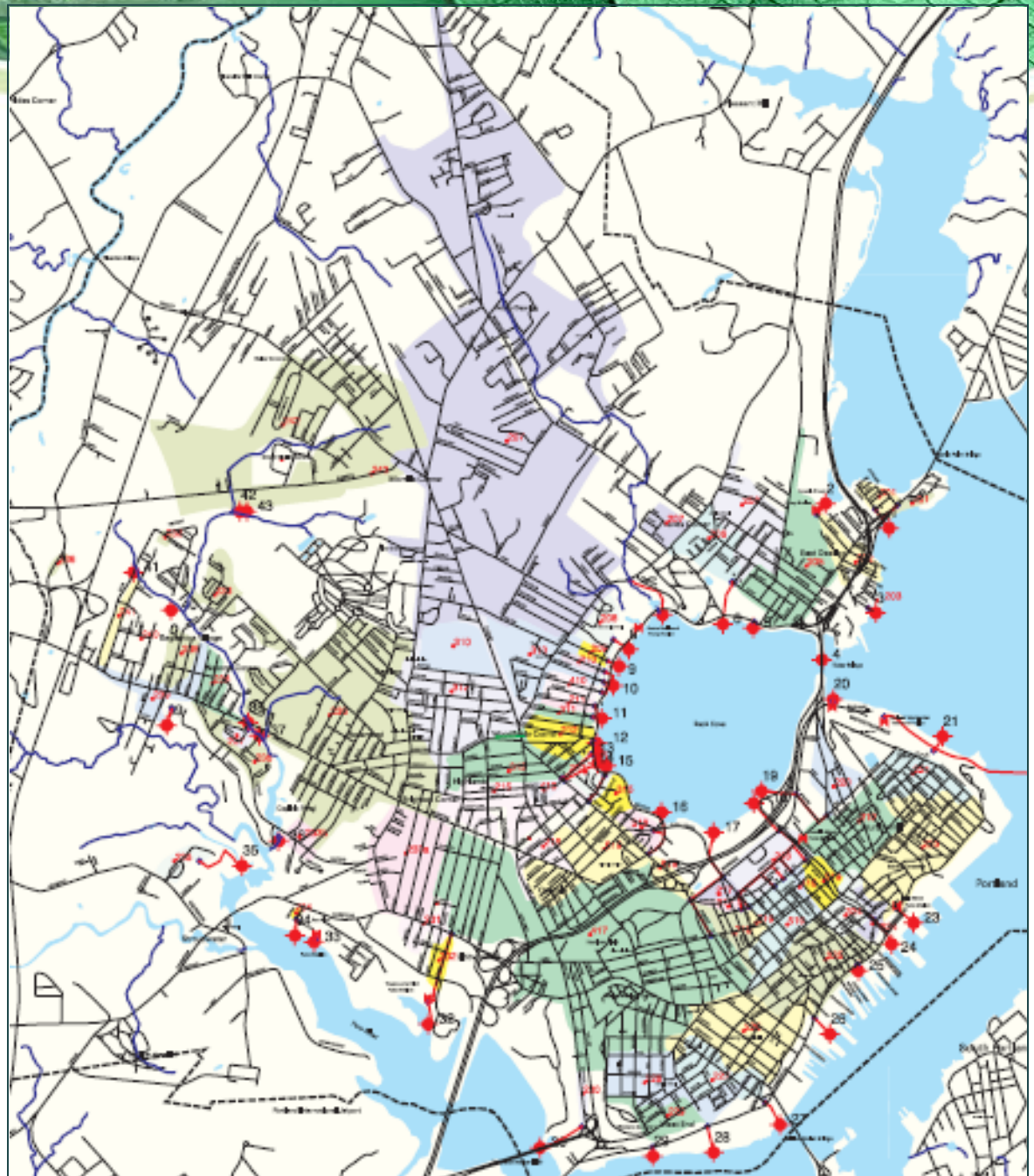
- Often tie credits to meeting design requirements
- Complex Six categories of standards – changed over time
  - Might be simplified to three:
    1. basic/general
    2. advanced (phosphorous & urban impaired)
    3. flood
  - Are sometimes waived – e.g. ocean discharge



# Urban Impaired Streams



# Combined Sewer Area





# Policy Question #1

## Impact Reduction Credit Options

- Option 1 – Should Portland offer a peak flow credit?
- Option 2 – Should Portland offer a water quality credit of some type?
- **Should we offer credits tied to design standards – what are your thoughts?**
- **Option 3 – Is there another kind of impact reduction credit that Portland should offer?**





# Credit Based on Cost Reduction

- **What does Portland spend money on that private investment can or does mitigate directly?**
  - Education on water quality
  - Maintenance of larger areas
  - NPDES permit compliance
  - Others?

**Option 4 – Should Portland offer a cost reduction credit, and if so, for what activities?**



# Strength of Opinion

## Strength of Support

NO!

YES!

-2

-1

0

1

2

- Education Credit

- Private Maintenance Credit

- NPDES Credit

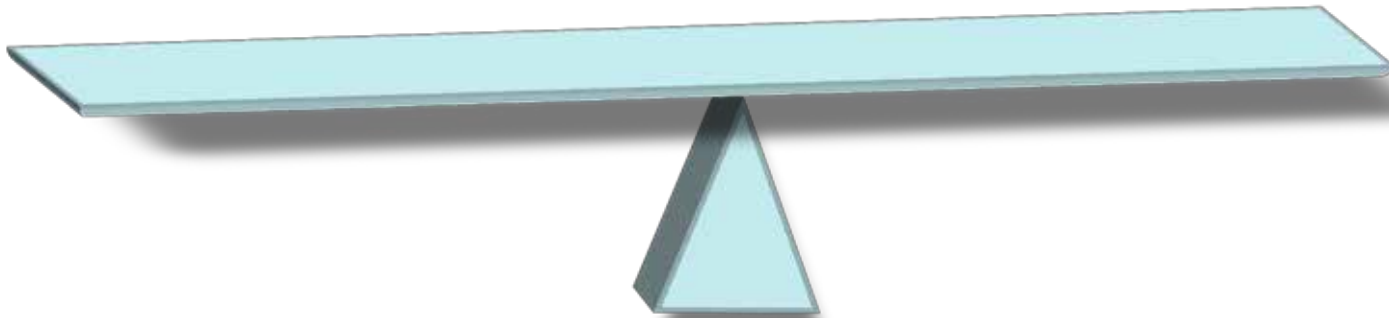
Other \_\_\_\_\_



# Credit “Generosity”

**Encourage  
good behavior  
and private  
investment**

**Give too  
much away  
too easily  
too costly**



*Most cap credits to some limit less than 100%*



# Reasons to Cap Credits

- **Fixed costs – 5%±**  
this cost will not decrease
- **Irreducible and unrelated program costs – 15%±**  
this cost not tied to impervious area
- **Roads – everybody should pay – 33%±**  
this cost allocated to everyone now
- **Limits on treatment effectiveness**  
can't eliminate all impacts of development

*You could justify a cap from 0% to maybe 50%*



# Policy Question #2: Should Portland Cap Credit Amounts?

