##### [00:00:00.670] - Speaker 1

Welcome to this Community viz Video Tutorial this tutorial will show you how to use the Custom Impacts Wizard, an easy to use tool to create a set of indicators for our Community Viz analysis. In previous tutorials, we've covered what an indicator is and how we use them as descriptive measurements that apply to entire scenarios. We've also seen other tools that help us build indicators such as the Common Impacts and 360 Indicator. Wizards use the Customer Impacts Wizard to quickly generate customized measures for your analysis. Create multiple components such as assumptions, attributes, indicators and charts, and let the wizard guide you through the creation of summer statistics such as counts, sums and means. To show you the Custom Impacts Wizard, we'll set you up with a little situation. In this situation, a new policy is attempting to promote health and wellness by creating community garden space and linking that to the number of planned dwelling units. We will use the Customer Impacts Wizard to set up a measure for total new garden space using our New City Center analysis to explore the implications of this policy. After the wizard runs, we'll look at the results and view the assumptions behind the indicators.

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We'll change a few assumptions and see how that affects the indicator. New City Center is a community of analysis that is based on a quickly growing city in the western United States. In this analysis, we have two growth scenarios for an area that is currently undeveloped alternative B and Alternative A. You can see that alternative B is currently active. You can see a mix of residential and non residential buildings being proposed in Orange. It is this building layer that will use for the Custom Impacts Analysis. Remember that we're interested in creating a unique indicator showing total new garden space that will be acquired under a New city policy. You can activate the Custom Impacts Wizard by going to the Scenario 360 Toolbar then to tools and activate in the Customer impacts wizard here. Or we can add the Decision Tools toolbar by going to view and adding the toolbar here. The Custom impacts icon looks like this. Click on it to activate. In this first screen of the wizard, we need to choose a model type. We have a number of different options features based on a location. An example of that might be counting trees in a park or parks containing ponds.

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Items and features. A good example of that might be number of fireplaces based on the number of fireplaces per house. We could also add amounts per an attribute value. An example might be length or area so another example that might be water needed to irrigate fields based on gallons per acre. We can also classify and count features by attribute value or by proximity to other features. If we're confused about what one of these means, we can always click on it to get a little help. This will have a lot more information about what each model does. In the next screen of the wizard, we need to define a few settings. I want to be working in the layer called Buildings, so I'll find it here. The attribute upon which this amount is based is called dwelling units. I'll pull down and I'll look for here. If I was doing a calculation on something like area, I might want to convert my units from something like square feet to square miles. But in this case I'm not going to do a conversion. I'll name the item here. I'll call it new garden space. I also need to create a new assumption, so I'll click on that here.

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Here's where I'll set up an assumption for the per unit community garden space. In the Properties tab I'll give this a name something like Community Garden Space per unit. In the Description tab I'll put in.

##### [00:03:51.040] - Speaker 2

A short description amount of community garden.

##### [00:03:54.390] - Speaker 1

Space for all new dwelling units. In the category, I'll put this as.

##### [00:04:00.140] - Speaker 2

General and the format will be number.

##### [00:04:04.530] - Speaker 1

Next we'll click on the Valid Values tab. In the default value we'll leave is 200. Our units will be square feet. We'll leave the incremental slider as one and the minimum is 150 sqft. We won't need any decimals, so we'll give this a zero and put the maximum at $500.

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this is all we'll need for this assumption. Back in the wizard setting windows in the amount per attribute, I'll go down here, click the radio button for user assumption, and make sure that my new assumption, community garden space is selected. In the final screen of the wizard. I'll simply want to review the components that are used by this model. I'll create a new attribute in the building layer called New garden space. This will create a new indicator called Total New garden space. It will rely on an assumption called Community garden space per unit and it will be displayed in a chart called New garden space. Once I'm satisfied with this, I can hit finish to start the wizard. Once the wizard is finished, I can take a look at the new indicator total New Garden Space. It's displayed here in this new chart. I can see that under this policy of requiring 200 community garden space, this would result in a total of a little less than two and a half million square feet of total new community garden space. If I wanted to take a look at the formula behind that indicator, I could do it by double clicking the indicator and going to the formula here.

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I could edit the formula. If I didn't like the unit's square feet, I could edit the formula and add a conversion factor that would convert square feet to say something like Acres. Let's take a look at the attribute new Garden Space. I'll open the attribute field by going here and clicking Open Attribute table. If I scroll to the right, I can see the new attribute that was created new garden space. Let's explore the implications of changing the policy. If 200 Sqft seemed like a lot, I could lower it to say something like 150 sqft. Then apply the assumption changes. It will run a quick calculation and we can see what the result is. Lowering the required community garden space per unit to 150 Sqft would lower the total to about 1.8 million. Can see that displayed in blue in the cross hatch. You can see the previous value that was about 2.4 million Sqft. If I wanted to change the parameters of the assumption, I could always do that by going to 360 set up and going to assumptions. Here I could find my assumption community garden space and change the valid values. Let's say I wanted to put the minimum down to 50.

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I could do that here, click okay and see the change. Let's lower it even further, apply the assumption changes and see that change again. I'd like to show you one more example using the Customer Impacts Wizard. Let's exit out of my assumptions and I'll save those. Activate the wizard and as my model type this time I'll choose proximity to other features. For this set of impacts, I'm interested in knowing the number of buildings that are closest to the different schools in the area. The layer containing the features that I like to classify is my buildings layer which we've used before. The layer containing the features to be on or near are my schools, and I like to differentiate between the different schools simply using the name of each different school. The following components are used by this model we'll create a new attribute nearest schools, a number of indicators, the count of buildings by the different school, and finally, it will create a chart that will help me represent the results. In the chart, I can see that the count of buildings have been broken down into percentages. A quick glance at this reveals that there are probably two schools that will be most affected by all this new building.

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To see which ones, let's go to 360 Analysis and click on the indicators view. Here I can see all of the new indicators that have been created the count of buildings by the school at which they are closest to. I have these results for both alternative A and alternative B. The active scenario. Glassing through these I can see that 153 buildings are closest to Ridgeview and 167 buildings are closest to Wintermere. If I was concerned which schools would be most impacted by all this new building, these are the two schools that I would be most concerned about. If I wanted to make some changes to my chart, I would go ahead back to 360 Setup, go to Charts and click on the chart Properties. Here I could give the chart a new name. In the data tab, I could remove the indicators for which the value is zero to create a more legible chart. Let's review what the custom Impacts Wizard can do. You can use the Customer Impacts Wizard to get numbers, charts and reports almost instantaneously to see impacts and conditions of projected scenarios. You can let the wizard guide you through the creation of new impact calculations.

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In our example, we look at new community garden space. This could easily be tax revenue or even distance to local schools. We can change assumptions and see the impacts immediately. Thank you for watching this Community Viz video Tutorial. For more video tutorials and community of his resources, please visit the website.