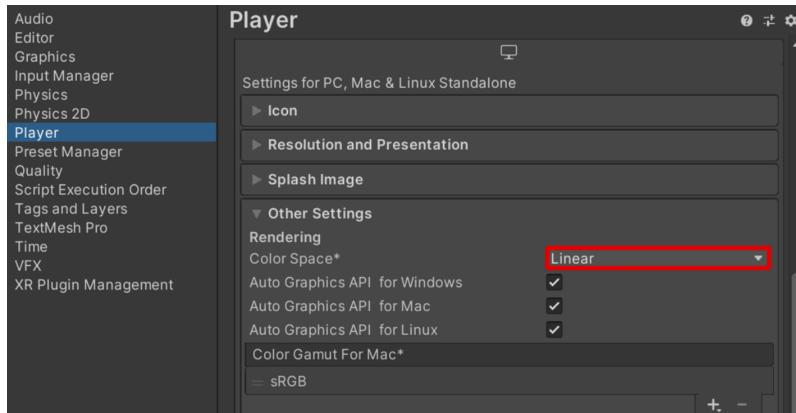


# Pure Nature 2 : Meadows - Setup

/!\ Make sure your project Rendering Settings are set to **Linear**.

Rendering Settings are located in **Edit > Project Settings > Player**



## Standard / Built-in :

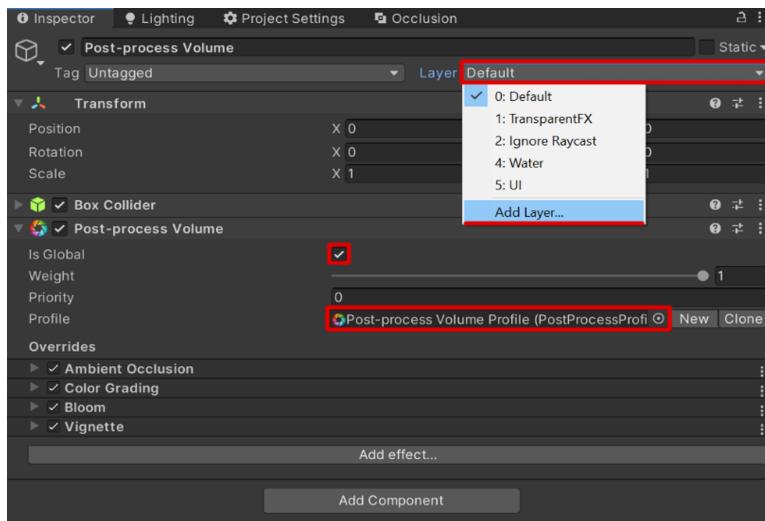
To achieve the same lighting as the screenshots seen on the Asset Store, install the **Post-Processing** via the Package Manager, located in **Window > Package Manager**

When installed, create a **Game Object > 3D Object > Post-Process Volume**.

On the created Volume, assign the Profile included in the pack, or create a new one.

Define a Layer for the Post-Process Volume by clicking on the **Default** Layer and **Add Layer...**. Give any name to the new Layer, and go back to the Volume to assign it.

Then, enable **Is Global**.



Now add a **Post-Process Layer** component to the scene **Camera**, and assign the Layer to it. Finally, assign an Anti-Aliasing method, such as **FXAA** in the component.

For more information on how to use the Post-Processing Stack :

<https://docs.unity3d.com/Packages/com.unity.postprocessing@3.2/manual/Quick-start.html>

## URP :

After downloading the Universal RP from the package manager, open the package located in **PureMeadows > Settings > URP**.

Assign the extracted **URPAsset** in **Edit > Project Settings > Graphics**.

Assign the provided Global Volume Profile located in **PureNature > Settings > URP** to the Global Volume in the scenes if missing.

## Shaders :

All Shaders are made, and are fully editable with **Amplify Shader Editor**.

They are located in **PureMeadows > Shaders**.

Most shaders use either **VertexColor**, an **IDmap**, or a **Mask** to control their effects. Some transparent shaders (Grass and Trees) uses dithering as opacity method.  
It can be disabled on the Tree leaves materials.

Trees Meshs use the following VertexColor channels :

**R** – Micro wind (for leaves)

**G** – Base Wind (for trunk)

**B** – Layer (for moss, snow...)

A – n/a

### **BK\_Grass :**

Transparent shader for Grass with color variation and wind.

Grass distance is managed by the **EnvironmentManager**.

Normal map can be put in WorldSpace to change grass lighting more globally than per-patch.  
Same for the noise that controls the color variation (blend between Color1 and Color2).

Have a Wind multiplier.

### **BK\_StandardLayer :**

Standard PBR Shader, with a masked material layer for moss or snow.

Layer mask uses either **Vertex Color** or **World-Space Normals** (top of the object). VertexColor can be adjusted by using Layer Position and Layer Contrast.

Mesh normals and Layer normals, can be blended together.

Mask map use the following channels :

**R** – Metalness

**G** – Occlusion

**B** – n/a (or Heightmap when available)

A – Smoothness

## **BK\_VegetationTrunk :**

Same Shader as the BK\_StandardLayer, with VertexAnimation added to move trunks with the wind.

Wind is controlled by the VertexColor (Green channel).

Wind VertexColor can be adjusted by using Layer Position and Layer Contrast.

Has a Wind Multiplier override.

Mask map use the following channels :

**R** – Metalness

**G** – Occlusion

**B** – n/a (or Heightmap when available)

A – Smoothness

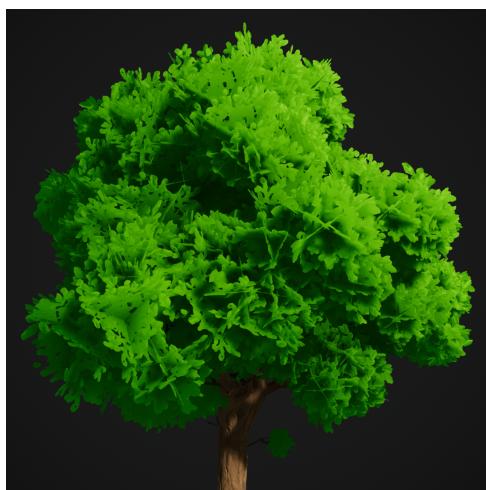
## **BK\_VegetationLeaves :**

Shader for trees leaves with Translucency and wind.

Has a gradient parameter to control a blend between two colors from base to top, a third color is used for a global color variation (controlled by a World-Space noise).

Has a Wind Multiplier override.

The checkbox **Hide Sides** enables flat planes hiding when viewed at glancing angles.  
This uses Dithering.



*Planes/Cards visible at angle*



*Smooth fluffy tree leaves !*

## **BK\_Impostor :**

Same shader as BK\_VegetationLeaves, with Normal and Mask added for lighting and color.  
Use the same color parameters than the other tree shaders.

Has a Wind Multiplier override.

Mask map uses the following channels :

**R** - Metalness

**G** - Occlusion

**B** - Leaves mask (for color)

A - Smoothness

## **BK\_Water :**

Transparent Shaders with depth color, edge foam, refraction, caustics, and waves.

Normal Direction, control the direction and speed of the main Normal map, blended together.  
XY and ZW.

Edges Fade, add a subtle fade on the borders of the water (not to have a sharp mesh edge)

## **BK\_Clouds :**

Transparent shader for pseudo-volumetric clouds. Controls two moving noises at different speeds/directions, XY and ZW.

Has multiple parameters for color, coverage, softness, scattering, distortion...

Main Color can be overrided by the **EnvironmentManager**.

# Scripts :

The **EnvironmentManager** script is here to offer some controls over Vegetation, Wind, Fog & Sun. Simply drop the prefab located inside the Prefabs folder into the scene if it's missing.

- **Global Lighting :**

The three gradients allow you to change the color of the Sun Fog and Clouds, relative to the sun's rotation.

Each override can be individually enabled or disabled.

- **Wind :**

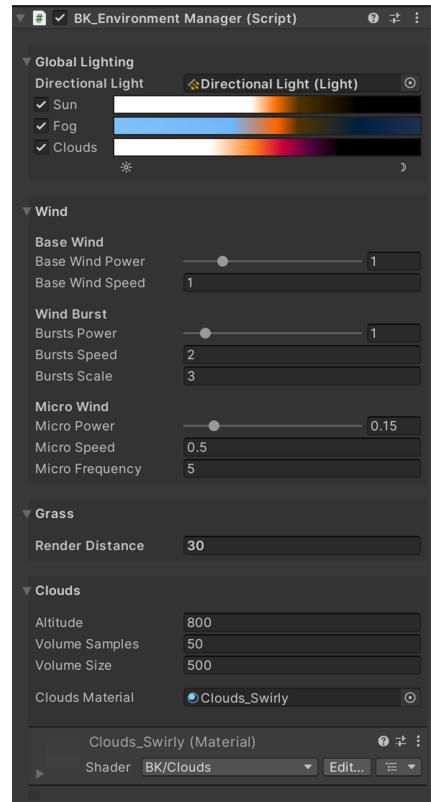
- BaseWind controls the wind power of trees trunks.
- WindBursts controls a World-Space noise that multiply over the BaseWind to give it some movement variations.
- MicroWind controls the wind strength impacting leaves and grass.

- RenderDistance for **Grass**.

The value also need to be edited in Terrain settings (twice the script value for best result).

- **Clouds** are managed both script and shader side.

The script spawns a number of Quads meshes, to display the clouds with a volume effect.



Volume Samples is the number of planes. Volume Size controls planes spacing.

You can edit textures, coverage, movement speed, color etc, on the Clouds Material just below the script component.

A **BK\_FreeCamera** script is also available, WASD keys to move around and mousewheel to zoom.

# Tips & Tweaks :

LODs distance can be easily increased/decreased in **Project Settings > Quality > LOD Bias**

In the Project tab, search for the keyword **\_imp** to show all the impostors materials in the need to edit them all at once.

Change the Fog Density in **Window > Rendering > Lighting > Environment**

You can duplicate Project or Inspector windows and **lock** them to the selection, for ease of multiple materials/prefabs modification.

## Contact :

If you have any issue, questions, or simply want to say hello, feel free to join the BK Support Discord server : <https://discord.gg/CBVCT9pSb2>, or message us at [contact@bk-prod.fr](mailto:contact@bk-prod.fr).

Thank you ❤