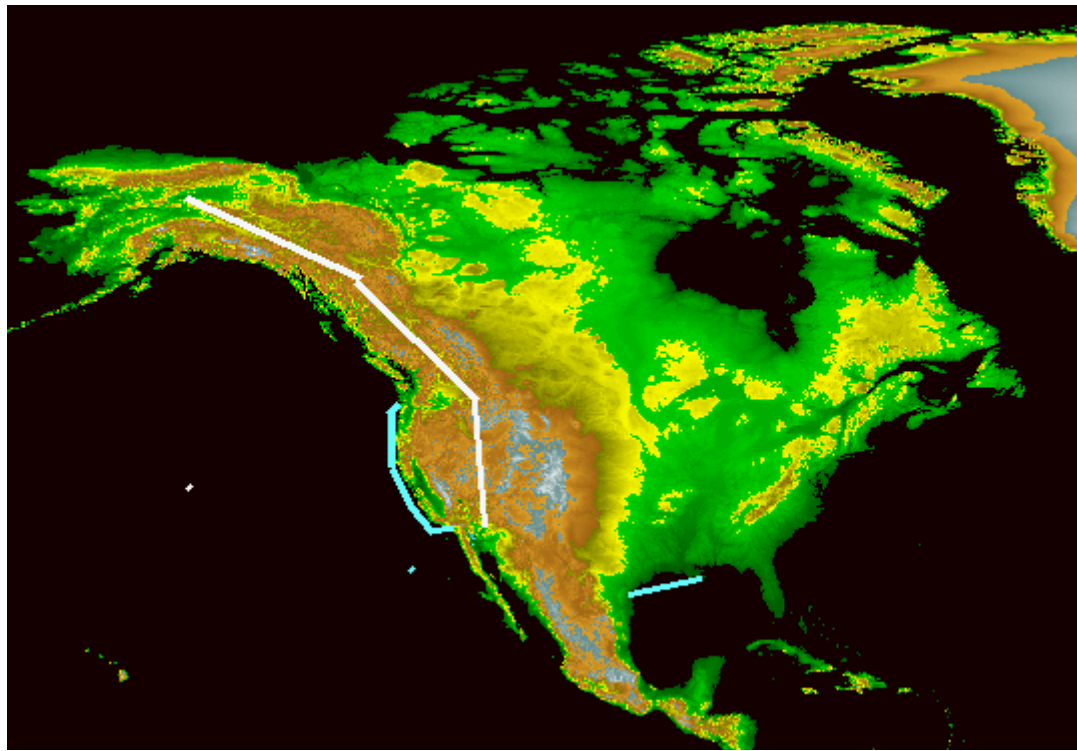


New Ice Age Ahead

NAWAPA versus Least Action



Trans-oceanic river diversion
versus over-land diversion

Which is the most efficient and serve the best in the dawning of a New Ice Age?

The Least Action Principle the critical principle for large-scale development at any time!

It makes no sense to launch large-scale arctic-focused development projects, such as the fifty-year NAWAPA project to divert the northern rivers that currently flow into the sub-arctic oceans, overland to the South, to irrigate the southern deserts of the USA and Mexico for increased agricultural production. Such a project was developed in the 1960s by an American engineering firm and became known as the North American Water and Power Alliance (NAWAPA) project. The project didn't go anywhere at the time, but it is now being promoted again as an economic driver to redevelop the collapsing North American economy. But why would one go this route, building giant dams in a 50 year project to divert the farthest rivers on the continent, and small ones at that, across 2000 miles of mountains, pumping the water across a high elevation plateau, to irrigate low elevation areas, when greater volumes exist 'locally' that flow into the ocean, which can simply be diverted in confined arteries within the oceans to flow to the areas were water is needed, to be pumped into a pipeline distribution system.

This change in the NAWAPA process would enable the desired result to be obtained with far less effort and in a far shorter time. This would accord with the platform on which the natural universe operates which always utilizes a path that requires the least actions to meet an objective. This principle applies to economic processes too. If this principle was enabled for NAWAPA it would be expressed in two ways. One way to express it would be to choose the closest source, instead of the most distant, and the choose the most

efficient path, rather than the most difficult one. The second way in which the least action principle would be applied, would be to produce the diversion and distribution infrastructures in automated industrial processes with the least amount of human action required to achieve the desired end.

The least action principle can be applied to NAWAPA in both of these ways, that would enable the most rapid and most efficient completion of the process.

Enabling the most efficient path

The promoted design of the project would indeed be a huge consumer of human labor, the largest ever. It would involve the laborious building of over 300 separate projects, including major dams, one standing 1,700 feet high (3.5 times as the Great Pyramid in Egypt), and another dam standing 900 feet high, both of which are to be built in permafrost country, in order to raise the water levels of two of the northern rivers to such height that the rivers flow backwards and drain southward to be pumped into the Rocky Mountain Trench. From there the water would be channeled far to the South through a long string of reservoirs, tunnels, canals, aqueducts, with pump lifts in between that lift the diverted water over the 5,500 foot high hump of the Nevada Great Basin of high elevation desert, before it can reach the deep Southwest. If the project was built and be completed after a construction period spanning nearly half a century, the NAWAPA complex would be the largest single infrastructure item ever created on the face of the planet. The pump lifts alone, that would drive the system, would require 38 major nuclear power plants to provide the power for the pumping.

The giant project would eventually, after four to five decades of construction, deliver upwards to 90 million acre feet of fresh water per year to enable irrigation for food production in areas that are currently deserts. The least action principle would enable the same outcome by diverting water of the outflow of the Columbia River to the coast of California in thin-walled arteries made of basalt, produced in automated industrial processes. On this basis the entire project could up and running before the licensing of the numerous projects for the overland route would be arranged, and construction could begin. The same principle could also be applied to divert parts of the outflow of the Mississippi River to the coast of Texas, to be distributed from there to all the dry areas East of the continental divide with minimal pumping action required.

Applying an efficient universal principle

The most wide-spread natural diversion on the planet utilizes the efficient principle of Water-in-Water Conveyance. The Great Ocean Conveyer Belt moves many-times greater volumes of water around the world than all the rivers in the world combined. It is a natural expression of a universal principle. With this principle being applied in the small, the flow of large rivers of fresh water can be enabled, confined into thin-walled arteries in which enormous volumes of water can be transported extremely efficiently over long distances. On the same principle great floating reservoirs be created. With fresh water being 2.7% lighter than salt water, the created fresh water reservoirs would simply float on the surface of the oceans, separated by 'thin' membranes from the salt water. Almost any volume of water can be stored and transported that way. With NAWAPA enabling this technology, based on the least action principle, fresh water shortages would become forever history on our planet.

Least action in time

The least action principle would also need to be applied to the NAWAPA project in respect long-term efficiency. In this respect the sub-arctic sourced diversion would fall apart with the onset of the next Ice Age glaciation cycle, which could begin already during the construction period, or if not, could occur in the immediate decades thereafter. The onset of glaciation would immediately disable the northern rivers and thereby disable the entire project. In this case the enormous economic effort, that would have been devoted to the northern project, would have been wasted, and the opportunity that existed, to prepare the world for the real need, to protect the food supply against the disabling cold period, would be wasted likewise. This potentially horrendous tragedy, that is inherent in the current NAWAPA design, could be

avoided by enabling the available least-action options for the NAWAPA design.

Least action for efficient land use

Applying the available least-action options to NAWAPA design does not mean that the idea of irrigating the southern U.S. and Mexican deserts for increased food production would be in danger of being unattainable. To the contrary. It would mean that still better objectives become attainable. The potential near return of the Ice Age glaciation in the north, if it became acknowledged, would re-orient the NAWAPA development focus towards even more-efficient options for increasing food production, then irrigating the deserts, by placing agriculture afloat onto the tropical oceans. In this case the desert areas would remain retained for industrial use and the building of new cities, which would add up to an even more efficient land use, and a more powerful expression of the least action principle.

[1. NAWAPA under the principle of basic economics?](#)

[2. Enabling the building of NAWAPA dams](#)

[3. Saving the pipeline, saving NAWAPA](#)

[4. Would Canada benefit from NAWAPA?](#)

[5. NAWAPA Atlantic distribution system](#)

[6. NAWAPA Floating Agriculture](#)

[7. NAWAPA Least Action Principle](#)

[8. NAWAPA efficient option](#)

Also see:

[2011 - NAWAPA](#)

[2011 - Industrial Revolution](#)

[2011 - Free Electric Energy](#)

[2011 - Nuclear Fusion Power Delusion](#)

[2011 - Ice Age anew and Renaissance](#)

[2011 - Universal Love](#)

[2011 - Empire Religion](#)

[2011 - Empire Wars](#)

[2011 - Christian Science](#)

[2011 - New Science](#)

[more on empire, universe, energy, NASA, science, NAWAPA, music, world
with LPAC videos on the Nation, Science, Economics, and Empire](#)

[Home index](#)

E-Mail: cygnistar@shaw.ca

[Rolf Witzsche](#)

[My published books, research, novels, science,
spirituality, civilization, poetry, photography, peace and humanity](#)

[Home Index](#)

[Please consider a donation - Thank You](#)

Published by Cygni Communications Ltd. North Vancouver, BC, Canada - (C) - public domain - Rolf A. F. Witzsche

[Agape Research](#)

[About Cygni](#)

[Webmaster Resources](#)